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LOGINID:ssspta1617sxw

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

* * *	* *	* *	* *	* Welcome to STN International * * * * * * * * * *
NEWS	1			Web Page for STN Seminar Schedule - N. America
NEWS		JAN	0.2	STN pricing information for 2008 now available
NEWS		JAN		CAS patent coverage enhanced to include exemplified
MEMO	,	UAN	10	prophetic substances
NEWS	4	JAN	20	USPATFULL, USPAT2, and USPATOLD enhanced with new
MEMO	4	UMIN	20	custom IPC display formats
NEWS	5	JAN	2.0	MARPAT searching enhanced
NEWS		JAN		USGENE now provides USPTO sequence data within 3 days
MEMO	0	OMIN	20	of publication
NEWS	7	JAN	20	TOXCENTER enhanced with reloaded MEDLINE segment
NEWS		JAN		MEDLINE and LMEDLINE reloaded with enhancements
NEWS				STN Express, Version 8.3, now available
NEWS				PCI now available as a replacement to DPCI
NEWS				IFIREF reloaded with enhancements
NEWS				IMSPRODUCT reloaded with enhancements
NEWS				WPINDEX/WPIDS/WPIX enhanced with ECLA and current
MEMP	13	FEB	23	U.S. National Patent Classification
NEWS	1.4	MAR	21	IFICDB, IFIPAT, and IFIUDB enhanced with new custom
MEMO	14	THE	31	IPC display formats
NEWS	1.5	MAR	3.1	CAS REGISTRY enhanced with additional experimental
MENO	10	THIL	31	spectra
NEWS	16	MAR	31	CA/CAplus and CASREACT patent number format for U.S.
ишию	10	THIL	51	applications updated
NEWS	17	MAR	31	LPCI now available as a replacement to LDPCI
NEWS		MAR		EMBASE, EMBAL, and LEMBASE reloaded with enhancements
NEWS		APR		STN AnaVist, Version 1, to be discontinued
NEWS		APR		WPIDS, WPINDEX, and WPIX enhanced with new
112110				predefined hit display formats
NEWS	21	APR	28	EMBASE Controlled Term thesaurus enhanced
NEWS		APR		IMSRESEARCH reloaded with enhancements
NEWS		MAY		INPAFAMDB now available on STN for patent family
				searching
NEWS	2.4	MAY	3.0	DGENE, PCTGEN, and USGENE enhanced with new homology
				sequence search option
NEWS	25	JUN	0.6	EPFULL enhanced with 260,000 English abstracts
NEWS		JUN		KOREAPAT updated with 41,000 documents
NEWS	27	JUN	13	USPATFULL and USPAT2 updated with 11-character
				patent numbers for U.S. applications
NEWS	28	JUN	19	CAS REGISTRY includes selected substances from
				web-based collections
NEWS	29	JUN	25	CA/CAplus and USPAT databases updated with IPC
				reclassification data
NEWS	30	JUN	30	AEROSPACE enhanced with more than 1 million U.S.
				patent records
NEWS	31	JUN	30	EMBASE, EMBAL, and LEMBASE updated with additional
				options to display authors and affiliated

organizations

NEWS 32 JUN 30 STN on the Web enhanced with new STN AnaVist

Assistant and BLAST plug-in

NEWS 33 JUN 30 STN AnaVist enhanced with database content from EPFULL

NEWS EXPRESS JUNE 27 08 CURRENT WINDOWS VERSION IS V8.3. AND CURRENT DISCOVER FILE IS DATED 23 JUNE 2008.

NEWS HOURS STN Operating Hours Plus Help Desk Availability

NEWS LOGIN Welcome Banner and News Items

NEWS IPC8 For general information regarding STN implementation of IPC 8

Enter NEWS followed by the item number or name to see news on that specific topic.

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* * * * * * * * * * * * * * * * STN Columbus * * * * * * * * * * * * * * * * * *

TOTAL SESSION

0.21

FILE 'HOME' ENTERED AT 09:06:39 ON 10 JUL 2008

=> file req

COST IN U.S. DOLLARS SINCE FILE ENTRY 0.21

FULL ESTIMATED COST

FILE 'REGISTRY' ENTERED AT 09:06:56 ON 10 JUL 2008 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2008 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 9 JUL 2008 HIGHEST RN 1033322-45-0 DICTIONARY FILE UPDATES: 9 JUL 2008 HIGHEST RN 1033322-45-0

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH January 9, 2008.

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

Uploading C:\Program Files\Stnexp\Queries\10509214.str

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chain nodes :
6 7 8
ring nodes :
1 2 3 4 5
chain bonds :
1-8 2-6 5-7
ring bonds :
1-2 1-5 2-3 3-4 4-5
exact/norm bonds :
1-2 1-5 2-3 2-6 3-4 4-5 5-7
exact bonds :
1 - 8
Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:CLASS 7:CLASS 8:CLASS
L1
       STRUCTURE UPLOADED
=> s 11 sam
SAMPLE SEARCH INITIATED 09:07:13 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -
                                   2369 TO ITERATE
84.4% PROCESSED
                   2000 ITERATIONS
                                                              50 ANSWERS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.01
FULL FILE PROJECTIONS: ONLINE **COMPLETE**
                       BATCH **COMPLETE**
                           44461 TO 50299
PROJECTED ITERATIONS:
PROJECTED ANSWERS:
                           25234 TO 29678
L2
            50 SEA SSS SAM L1
=> d.50
    ANSWER 50 OF 50 REGISTRY COPYRIGHT 2008 ACS on STN
    1003701-37-8 REGISTRY
RN
ED
     Entered STN: 15 Feb 2008
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Acetamide, N-[4-[(diethylamino)sulfonyl]phenyl]-2-[[3-[2-[(3-hydroxyphenyl)methylene]hydrazinyl]-1H-1,2,4-triazol-5-yl]thio]- (CA

INDEX NAME)
MF C21 H25 N7 O4 S2
SR Chemical Library

CN

Supplier: Scientific Exchange, Inc.

LC STN Files: CHEMCATS

=>

Uploading C:\Program Files\Stnexp\Queries\10509214B.str

12 ANSWERS

Chain nodes:
6 7 8 9 10
ring nodes:
1 2 3 4 5
chain bonds:
1-8 2-6 5-7 6-9 7-10
ring bonds:
1-2 1-5 2-3 3-4 4-5
exact/norm bonds:
1-2 1-5 2-3 2-6 3-4 4-5 5-7 6-9 7-10
exact bonds:
1-8

Match level: 1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:CLASS 7:CLASS 8:CLASS 9:CLASS 10:CLASS

L3 STRUCTURE UPLOADED

=> s 13 sam SAMPLE SEARCH

SAMPLE SEARCH INITIATED 09:09:33 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 2278 TO ITERATE

87.8% PROCESSED 2000 ITERATIONS INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED) SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
PROJECTED ITERATIONS: 42697 TO 48423
PROJECTED ANSWERS: 52 TO 494

L4 12 SEA SSS SAM L3

=> d 10-12

L4 ANSWER 10 OF 12 REGISTRY COPYRIGHT 2008 ACS on STN

RN 90667-21-3 REGISTRY

ED Entered STN: 16 Nov 1984

CN Benzamide, 2,6-dichloro-N-[5-(methylthio)-1H-1,2,4-triazol-3-y1]- (CA INDEX NAME)

MF C10 H8 C12 N4 O S

LC STN Files: CA, CAPLUS, CASREACT, TOXCENTER, USPATFULL

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

3 REFERENCES IN FILE CA (1907 TO DATE)
3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L4 ANSWER 11 OF 12 REGISTRY COPYRIGHT 2008 ACS on STN

RN 85837-88-3 REGISTRY

ED Entered STN: 16 Nov 1984

CN Benzoic acid, 2-[[[[5-(methylthio)-1H-1,2,4-triazol-3-

yl]amino]carbonyl]amino]sulfonyl]-, methyl ester (CA INDEX NAME)

MF C12 H13 N5 O5 S2

LC STN Files: CA, CAPLUS, CASREACT, USPATFULL

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

3 REFERENCES IN FILE CA (1907 TO DATE)

3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L4 ANSWER 12 OF 12 REGISTRY COPYRIGHT 2008 ACS on STN

RN 37634-04-1 REGISTRY

ED Entered STN: 16 Nov 1984

CN Acetamide, N-[5-[(phenylmethyl)thio]-1H-1,2,4-triazol-3-yl]- (CA INDEX NAME)

MF C11 H12 N4 O S

LC STN Files: BEILSTEIN*, CA, CAPLUS, CASREACT, CHEMCATS
(*File contains numerically searchable property data)

2 REFERENCES IN FILE CA (1907 TO DATE) 2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

441 ANSWERS

=> s 13 ful

FULL SEARCH INITIATED 09:10:49 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 45988 TO ITERATE

100.0% PROCESSED 45988 ITERATIONS SEARCH TIME: 00.00.01

1.5 441 SEA SSS FUL L3

=> s 15 and thiophen?

546758 THIOPHEN? 8 L5 AND THIOPHEN?

=> d 1-8

ANSWER 1 OF 8 REGISTRY COPYRIGHT 2008 ACS on STN 1.6

RN 943419-94-1 REGISTRY

ΕD Entered STN: 26 Jul 2007

CN 2-Thiophenecarboxamide, N-[5-(methylthio)-1H-1,2,4-triazol-3-yl]-

(CA INDEX NAME) C8 H8 N4 O S2

MF

SR Chemical Library

Supplier: LaboTest LC

STN Files: CHEMCATS

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L6 ANSWER 2 OF 8 REGISTRY COPYRIGHT 2008 ACS on STN

926766-07-6 REGISTRY RN

Entered STN: 18 Mar 2007 ED

3-Thiophenepropanamide, N-[5-[[(4-chlorophenyl)methyl]thio]-1H-1,2,4-

triazol-3-yl]- (CA INDEX NAME) ME C16 H15 C1 N4 O S2

SR

Chemical Library

Supplier: UkrOrgSynthesis

STN Files: CHEMCATS T.C

- L6 ANSWER 3 OF 8 REGISTRY COPYRIGHT 2008 ACS on STN
- RN 926742-68-9 REGISTRY
- ED Entered STN: 16 Mar 2007
- CN Benzo[b]thiophene-2-carboxamide, N-[5-[[(4-chloropheny1)methyl]thio]-1H-1,2,4-triazol-3-yl]-4-fluoro-3-methyl- (CA INDEX NAME)
- MF C19 H14 C1 F N4 O S2
- SR Chemical Library Supplier: UkrOrqSynthesis
- LC STN Files: CHEMCATS

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

- L6 ANSWER 4 OF 8 REGISTRY COPYRIGHT 2008 ACS on STN
- RN 926706-58-3 REGISTRY
- ED Entered STN: 16 Mar 2007
- CN Benzo[b]thiophene-2-carboxamide, N-[5-[[(4-chlorophenyl)methyl]thio]-
- 1H-1, 2, 4-triazol-3-y1]- (CA INDEX NAME)
- MF C18 H13 C1 N4 O S2 SR Chemical Library
- Supplier: UkrOrgSynthesis
- LC STN Files: CHEMCATS

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

- L6 ANSWER 5 OF 8 REGISTRY COPYRIGHT 2008 ACS on STN
- RN 924185-75-1 REGISTRY

ED Entered STN: 01 Mar 2007

CN 2-Thiopheneacetamide, N-[5-[[(4-chloropheny1)methy1]thio]-1H-1,2,4-

triazo1-3-y1]- (CA INDEX NAME)

MF C15 H13 C1 N4 O S2 SR Chemical Library

Supplier: Aurora Fine Chemicals

LC STN Files: CHEMCATS

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L6 ANSWER 6 OF 8 REGISTRY COPYRIGHT 2008 ACS on STN

RN 866011-03-2 REGISTRY

ED Entered STN: 25 Oct 2005

CN 2-Thiophenecarboxamide, N-[5-[[(2-methylphenyl)methyl]thio]-1H-1,2,4-triazol-3-yl]- (CA INDEX NAME)

MF C15 H14 N4 O S2

SR Chemical Library

Supplier: Interchim

LC STN Files: CHEMCATS

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L6 ANSWER 7 OF 8 REGISTRY COPYRIGHT 2008 ACS on STN

RN 716318-11-5 REGISTRY

ED Entered STN: 26 Jul 2004

CN 2-Thiophenecarboxamide, N-[5-[[(4-chloropheny1)methyl]thio]-1H-1,2,4-triazol-3-v1]- (CA INDEX NAME)

MF C14 H11 C1 N4 O S2

SR Chemical Library

Supplier: Maybridge plc

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

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L6
     ANSWER 8 OF 8 REGISTRY COPYRIGHT 2008 ACS on STN
RN
    389070-06-8 REGISTRY
    Entered STN: 01 Feb 2002
ED
CN
     2-Thiophenecarboxylic acid, 5-(1,1-dimethylethyl)-3-[[[[5-
     (methylthio)-1H-1,2,4-triazol-3-yl]amino]carbonyl]amino]-, methyl ester
     (CA INDEX NAME)
MF
     C14 H19 N5 O3 S2
SR
    CA
LC
     STN Files: CA, CAPLUS, CASREACT
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1 REFERENCES IN FILE CA (1907 TO DATE) 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L8 393 L7 AND ANILINO

=> s 18 and thiophen?

546758 THIOPHEN? L9 57 L8 AND THIOPHEN?

=> d 57

L9 ANSWER 57 OF 57 REGISTRY COPYRIGHT 2008 ACS on STN

RN 334538-68-0 REGISTRY

D Entered STN: 03 May 2001

CN 1H-1,2,4-Triazol-3-amine, N-phenyl-5-(2-thienylthio)- (CA INDEX NAME) OTHER NAMES:

CN 3-Anilino-5-(thiophen-2-ylthio)-1,2,4-triazole

MF C12 H10 N4 S2

SR CA

LC STN Files: CA, CAPLUS, TOXCENTER, USPATZ, USPATFULL

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> => d 51-56

L9 ANSWER 51 OF 57 REGISTRY COPYRIGHT 2008 ACS on STN

RN 334538-86-2 REGISTRY

ED Entered STN: 03 May 2001

CN 1H-1,2,4-Triazol-3-amine, N-phenyl-5-(3-thienylthio)- (CA INDEX NAME)
OTHER NAMES:

CN 3-Anilino-5-(thiophen-3-ylthio)-1,2,4-triazole

MF C12 H10 N4 S2

SR CA

LC STN Files: CA, CAPLUS, TOXCENTER, USPAT2, USPATFULL

PhNH

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L9 ANSWER 52 OF 57 REGISTRY COPYRIGHT 2008 ACS on STN

RN 334538-84-0 REGISTRY ED Entered STN: 03 May 2001

CN 1H-1,2,4-Triazol-3-amine, 5-[(5-bromo-2-thienyl)thio]-N-phenyl- (CA INDEX NAME)

OTHER NAMES:

CN 3-Anilino-5-(5-bromothiophen-2-ylthio)-1,2,4-triazole

MF C12 H9 Br N4 S2

SR CA

LC STN Files: CA, CAPLUS, TOXCENTER, USPAT2, USPATFULL

1 REFERENCES IN FILE CA (1907 TO DATE) 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

1.9 ANSWER 53 OF 57 REGISTRY COPYRIGHT 2008 ACS on STN

RN 334538-82-8 REGISTRY

Entered STN: 03 May 2001 ED

CN 1H-1,2,4-Triazol-3-amine, 5-[(5-chloro-2-thienyl)thio]-N-phenyl- (CA INDEX NAME)

OTHER NAMES:

CN 3-Anilino-5-(5-chlorothiophen-2-vlthio)-1,2,4-triazole

MF C12 H9 C1 N4 S2

SR CA

LC STN Files: CA, CAPLUS, TOXCENTER, USPATZ, USPATFULL

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE) 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

- L9 ANSWER 54 OF 57 REGISTRY COPYRIGHT 2008 ACS on STN
- RN 334538-81-7 REGISTRY
- Entered STN: 03 May 2001 ED
- CN 1H-1,2,4-Triazol-3-amine, 5-[(5-methyl-2-thienyl)thio]-N-phenyl- (CA INDEX NAME)

OTHER NAMES:

- 3-Anilino-5-(5-methylthiophen-2-vlthio)-1,2,4-triazole CN
- MF C13 H12 N4 S2 SR
- CA
- LC STN Files: CA, CAPLUS, TOXCENTER, USPAT2, USPATFULL

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L9 ANSWER 55 OF 57 REGISTRY COPYRIGHT 2008 ACS on STN

RN 334538-80-6 REGISTRY

ED Entered STN: 03 May 2001

CN 1H-1,2,4-Triazol-3-amine, 5-[(3-chloro-2-thienyl)thio]-N-phenyl- (CA INDEX NAME)

OTHER NAMES:

CN 3-Anilino-5-(3-chlorothiophen-2-ylthio)-1,2,4-triazole

MF C12 H9 C1 N4 S2

SR CA

LC STN Files: CA, CAPLUS, TOXCENTER, USPAT2, USPATFULL

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L9 ANSWER 56 OF 57 REGISTRY COPYRIGHT 2008 ACS on STN RN 334538-79-3 REGISTRY

ED Entered STN: 03 May 2001

CN 1H-1,2,4-Triazol-3-amine, 5-[(3-methyl-2-thienyl)thio]-N-phenyl- (CA INDEX NAME)

OTHER NAMES:

CN 3-Anilino-5-(3-methylthiophen-2-ylthio)-1,2,4-triazole

MF C13 H12 N4 S2

SR CA

LC STN Files: CA, CAPLUS, TOXCENTER, USPATZ, USPATFULL

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> d hist

(FILE 'HOME' ENTERED AT 09:06:39 ON 10 JUL 2008)

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FILE 'REGISTRY' ENTERED AT 09:06:56 ON 10 JUL 2008
                STRUCTURE UPLOADED
L2
             50 S L1 SAM
1.3
               STRUCTURE UPLOADED
L4
             12 S L3 SAM
L5
            441 S L3 FUL
L6
              8 S L5 AND THIOPHEN?
L7
         172872 S 1,2,4-TRIAZOLE
L8
            393 S L7 AND ANILINO
             57 S L8 AND THIOPHEN?
=> file caplus medline biosis embase
COST IN U.S. DOLLARS
                                                   SINCE FILE
                                                                  TOTAL
                                                        ENTRY
                                                                SESSION
FULL ESTIMATED COST
                                                       259.59
                                                                 259.80
FILE 'CAPLUS' ENTERED AT 09:30:12 ON 10 JUL 2008
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
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FILE 'MEDLINE' ENTERED AT 09:30:12 ON 10 JUL 2008
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Copyright (c) 2008 The Thomson Corporation
FILE 'EMBASE' ENTERED AT 09:30:12 ON 10 JUL 2008
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=> s 19
L10
             2 L9
=> d ibib abs 1-2
L10 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2002:793578 CAPLUS
DOCUMENT NUMBER:
                         137:289052
TITLE:
                         Method for inhibiting methionine aminopeptidase type 2
                         (MetAP2), and inhibitor identification methods
INVENTOR(S):
                         Marino, Joseph P., Jr.; Ryan, M. Dominic; Smith, Ward
                         W.; Thompson, Scott K.
                        Smithkline Beecham Corporation, USA
PATENT ASSIGNEE(S):
SOURCE:
                         PCT Int. Appl., 789 pp.
                         CODEN: PIXXD2
DOCUMENT TYPE:
                         Patent
LANGUAGE:
                         English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:
     PATENT NO.
                         KIND DATE APPLICATION NO. DATE
                         A2 20021017 WO 2002-US9458 20020328
     WO 2002081415
         W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LK, LLS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
             PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,
             UA, UG, US, UZ, VN, YU, ZA, ZM, ZW
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,
             CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,
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BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG 06907 A1 20021021 AU 2002-306907 20020328

AU 2002306907

JP 2004535377 T 20041125 JP 2002-579403 20020328 PRIORITY APPLN. INFO.: US 2001-281221P P 20010403 WO 2002-US9458 W 20020328

AB Methods are disclosed for identifying inhibitors of hMetAP2 and for inhibiting hMetAP2 using inhibitors with certain structural, phys. and spatial characteristics. Preparation of triazole derivative inhibitors is also described.

L10 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2001:265251 CAPLUS

DOCUMENT NUMBER: 134:295827

TITLE: 3-Anilino-5-benzylthio-1,2,4-triazoles and analogous compounds and methods of use as inhibitors of type 2

methionine aminopeptidase (MetAP2)
INVENTOR(S): Marino, Joseph P., Jr.; Thompson, Scott K.; Veber,

Daniel Frank

PATENT ASSIGNEE(S): Smithkline Beecham Corporation, USA

SOURCE: PCT Int. Appl., 157 pp.

CODEN: PIXXD2
DOCUMENT TYPE: Patent

LANGUAGE: English FAMILY ACC. NUM. COUNT: 1

FAMILY ACC. NUM. COU PATENT INFORMATION:

| PA | PATENT NO. | | | KIND DATE | | | APPLICATION NO. | | | | | | DATE | | | | |
|---------|------------|------|------|-----------|-------------|-----|-----------------|-----------------|-------------------|------|-------|------|----------|----------|------|------|-----|
| WC | 2001 | 0247 | 96 | | A1 20010412 | | | WO 2000-US26951 | | | | | | 20000929 | | | |
| | W: | ΑE, | AL, | AU, | BA, | BB, | BG, | BR, | BZ, | CA, | CN, | CZ, | DZ, | EE, | GE, | GH, | GM, |
| | | HR, | HU, | ID, | IL, | IN, | IS, | JP, | KΡ, | KR, | LC, | LK, | LR, | LT, | LV, | MA, | MG, |
| | | MK, | MN, | MX, | MZ, | NO, | NZ, | PL, | RO, | SG, | SI, | SK, | SL, | TR, | TT, | TZ, | UA, |
| | | US, | UZ, | VN, | YU, | ZA, | AM, | AZ, | BY, | KG, | KZ, | MD, | RU, | ТJ, | TM | | |
| | RW: | GH, | GM, | KE, | LS, | MW, | MZ, | SD, | SL, | SZ, | TZ, | UG, | ZW, | AT, | BE, | CH, | CY, |
| | | DE, | DK, | ES, | FI, | FR, | GB, | GR, | ΙE, | IT, | LU, | MC, | NL, | PT, | SE, | BF, | ΒJ, |
| | | CF, | CG, | CI, | CM, | GA, | GN, | GW, | ML, | MR, | NE, | SN, | TD, | TG | | | |
| EF | 1223 | 932 | | | A1 | | 2002 | 0724 | 24 EP 2000-970527 | | | 27 | | 20000929 | | | |
| | R: | ΑT, | BE, | CH, | DE, | DK, | ES, | FR, | GB, | GR, | IT, | LI, | LU, | NL, | SE, | MC, | PT, |
| | | ΙE, | SI, | LT, | LV, | FI, | RO, | MK, | CY, | AL | | | | | | | |
| JE | 2003 | 5103 | 59 | | T 20030318 | | | JP 2001-527795 | | | | | 20000929 | | | | |
| US | 2005 | 0267 | 185 | | A1 | | 2005 | 1201 | | US 2 | 2005- | 1865 | 19 | | 2 | 0050 | 721 |
| US | 7304 | 082 | | | B2 | | 2007 | 1204 | | | | | | | | | |
| PRIORIT | Y APP | LN. | INFO | . : | | | | | | US 1 | 1999- | 1572 | 86P | 1 | P 1 | 9991 | 001 |
| | | | | | | | | | | WO 2 | 2000- | US26 | 951 | 1 | vi 2 | 0000 | 929 |
| | | | | | | | | | | US 2 | 2002- | 8943 | 3 | - 1 | A1 2 | 0020 | 329 |
| omumn c | | | | | 142 201 | | | 0050 | 0.77 | | | | | | | | |

OTHER SOURCE(S): MARPAT 134:295827

The compds. of the invention are non-peptide, reversible inhibitors of AB type 2 methionine aminopeptidase (MetAP2), and are useful in treating conditions mediated by angiogenesis, such as cancer, hemangioma, proliferative retinopathy, rheumatoid arthritis, atherosclerotic neovascularization, psoriasis, ocular neovascularization, and obesity. In particular, the method of inhibiting MetAP2 with triazoles I and their pharmaceutically acceptable salts and solvates is claimed [wherein: X = S or O; R1 = (un)substituted C1-6 alkvl, C3-6 alkenvl, C3-6 alkvnvl, (un) substituted aralkyl, (un) substituted heterocyclylalkyl, or cycloalkylalkyl; R2 = (un)substituted C2-6 alkyl, C3-6 alkenyl, C3-6 alkynyl, (un)substituted aralkyl, (un)substituted heterocyclylalkyl, cycloalkylalkyl; R3 = H, (un)substituted C1-6 alkyl, C3-6 alkenyl, C3-6 alkynyl, (un) substituted aralkyl, (un) substituted heterocyclylalkyl, cycloalkylalkyl, alkyl-C(0)-X'AB, alkyl-S(0)2X'AB, alkyl-X'AB; X' = 0, S, C or N; A, B = H, (un)substituted C1-6 alkyl, C3-6 alkenyl, C3-6 alkynyl, (un) substituted aralkyl, (un) substituted heterocyclylalkyl, cycloalkylalkyl; A and/or B may be absent]. A total of 312 synthetic examples are given. For instance, treatment of thiourea with NaOH and then Ph isothiocyanate gave 1-phenyl-2,4-dithiobiuret, i.e., PhNHC(:S)NHC(:S)NH2, which reacted with NEt3 and EtI in DMF to give 2-ethvl-1-phenvl-2-isodithiobiuret, i.e., PhNHC(SEt):NC(:S)NH2. Cyclocondensation of the latter with anhydrous hydrazine gave 3-anilino-5-mercapto-1,2,4-triazole, which reacted with K2CO3 and benzyl bromide in DMF to give the invention compound 3-anilino-5-benzylthio-1,2,4triazole. Using analogous substituted starting materials, more highly substituted invention compds. such as II were prepared The compds. have IC50 values of 0.0001-100 µM against MetAP2.

=> d it 2

REFERENCE COUNT:

L10 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2008 ACS on STN

IT Antiarteriosclerotics

(antiatherosclerotics; preparation of anilino(benzylthio)triazole derivs. as MetAP2 inhibitors)

THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

T Blood vessel, neoplasm

(hemangioma, treatment; preparation of anilino(benzylthio)triazole derivs.
as MetAP2 inhibitors)

IT Angiogenesis

(neovascularization, eye, treatment; preparation of anilino(benzylthio)triazole derivs. as MetAP2 inhibitors)

IT Eve, disease

(neovascularization, treatment; preparation of anilino(benzylthio)triazole derivs. as MetAP2 inhibitors)

IT Angiogenesis inhibitors

Antiarthritics

Antiobesity agents Antitumor agents

(preparation of anilino(benzylthio)triazole derivs. as MetAP2 inhibitors)

IT Eye, disease

(proliferative retinopathy, treatment; preparation of anilino(benzylthio)triazole derivs. as MetAP2 inhibitors)

IT Psoriasis

(treatment; preparation of anilino(benzylthio)triazole derivs. as MetAP2 inhibitors)

IT 4288-96-4P, 3-(4-Methylanilino)-5-benzylthio-1,2,4-triazole 334539-43-4P, 3-(4-Methoxyanilino)-5-benzylthio-1,2,4-triazole 334541-37-6P, 3-(2,6-Dimethylanilino)-5-benzylthio-1,2,4-triazole RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(drug candidate; preparation of anilino(benzylthio)triazole derivs. as MetAP2 inhibitors)

3922-44-9P, 3-Anilino-5-benzylthio-1,2,4-triazole 334538-50-0P, 3-Anilino-5-(4-chlorobenzylthio)-1,2,4-triazole 334538-51-1P. 3-Anilino-5-methylthio-1,2,4-triazole 334538-52-2P, 3-Anilino-5allvlthio-1,2,4-triazole 334538-53-3P, 3-Anilino-5-(2-methyl-2butenylthio)-1,2,4-triazole 334538-54-4P, 3-Anilino-5-(2methylbutylthio)-1,2,4-triazole 334538-55-5P, 3-Anilino-5-(2-methyl-2pentenylthio)-1,2,4-triazole 334538-56-6P, 3-Anilino-5-(αmethylbenzylthio)-1,2,4-triazole 334538-57-7P, 3-Anilino-5-(cyclohexylmethylthio)-1,2,4-triazole 334538-58-8P, 3-Anilino-5-[[(propoxycarbonyl)methyl]thio]-1,2,4-triazole 334538-59-9P, 3-Anilino-5-(3,3-dimethoxypropylthio)-1,2,4-triazole 334538-60-2P, 3-Anilino-5-(2-phenylethylthio)-1,2,4-triazole 334538-61-3P, 3-Anilino-5-[[(5-methylisoxazol-3-yl)methyl]thio]-1,2,4-triazole 334538-62-4P, 3-Anilino-5-[[(3-phenyl-1,2,4-oxadiazol-5-yl)methyl]thio]-1,2,4-triazole 334538-63-5P, 3-Anilino-5-(1H-benzimidazol-2vlmethvlthio)-1,2,4-triazole 334538-64-6P, 3-Anilino-5-[[2-(4chlorophenyl)thiazol-4-vlmethyl]thio]-1,2,4-triazole 334538-65-7P, 3-Anilino-5-[[(2-methylthiazol-4-vl)methyl]thio]-1,2,4-triazole 334538-66-8P, 3-Anilino-5-(pyridin-2-ylmethylthio)-1,2,4-triazole 334538-67-9P, 3-Anilino-5-(pyridin-4-ylmethylthio)-1,2,4-triazole 334538-68-0P, 3-Anilino-5-(thiophen-2-ylthio)-1,2,4-triazole 334538-69-1P, 3-Anilino-5-(4-i-propylbenzylthio)-1,2,4-triazole 334538-70-4P, 3-Anilino-5-(quinolin-8-ylthio)-1,2,4-triazole 334538-71-5P, 3-Anilino-5-(4-acetamidobenzylthio)-1,2,4-triazole 334538-72-6P, 4-(5-Anilino-2H-[1,2,4]triazol-3-ylthio)benzoic acid 334538-73-7P, 3-Anilino-5-(2-methylbenzylthio)-1,2,4-triazole 334538-74-8P, 3-Anilino-5-(4-trifluoromethylbenzylthio)-1,2,4-triazole 334538-75-9P, 3-Anilino-5-(3,5-dimethylbenzylthio)-1,2,4-triazole 334538-76-0P, 3-Anilino-5-(4-cyanobenzylthio)-1,2,4-triazole 334538-77-1P, 3-Anilino-5-(3,4-difluorobenzylthio)-1,2,4-triazole 334538-78-2P, 3-Anilino-5-(furan-2-ylthio)-1,2,4-triazole 334538-79-3P, 3-Anilino-5-(3-methylthiophen-2-ylthio)-1,2,4triazole 334538-80-6P, 3-Anilino-5-(3-chlorothiophen-2-ylthio)-1,2,4-triazole 334538-81-7P, 3-Anilino-5-(5-methylthiophen-2vlthio)-1,2,4-triazole 334538-82-8P, 3-Anilino-5-(5chlorothiophen-2-ylthio)-1,2,4-triazole 334538-83-9P, 5-[[[5-(Phenylamino)-4H-1,2,4-triazol-3-yl]sulfanyl]methyl]furan-2carboxylic acid ethyl ester 334538-84-0P, 3-Anilino-5-(5bromothiophen-2-ylthio)-1,2,4-triazole 334538-85-1P, 5-[[[5-(Phenylamino)-4H-[1,2,4]triazol-3-yl]sulfanyl]methyl]furan-2carbaldehyde 334538-86-2P, 3-Anilino-5-(thiophen-3-vlthio)-1,2,4triazole 334538-87-3P, 3-Anilino-5-(furan-3-ylthio)-1,2,4-triazole 334538-88-4P, 3-(4-Methylanilino)-5-(thiophen-2-vlthio)-1,2,4-334538-89-5P, 3-(4-Methylanilino)-5-(cyclohexylmethylthio)triazole 1,2,4-triazole 334538-90-8P, 3-(4-Methylanilino)-5-(pyridin-4vlmethylthio)-1,2,4-triazole 334538-91-9P, 3-(4-Methylanilino)-5-(2methyl-2-butenylthio)-1,2,4-triazole 334538-92-0P, 3-(4-Methylanilino)-5-(2-fluorobenzylthio)-1,2,4-triazole 334538-93-1P, 3-(4-Methylanilino)-5-[[(5-methylisoxazol-3-yl)methyl]thio]-1,2,4-triazole 334538-94-2P, 3-(4-Methylanilino)-5-(2-methylbenzylthio)-1,2,4-triazole 334538-95-3P. 3-(4-Methylanilino)-5-(3,4-difluorobenzylthio)-1,2,4-triazole $334538-96-4P, \ 3-(4-Methylanilino)-5-(2-methoxybenzylthio)-1,2,4-triazole\\ 334538-97-5P, \ 3-(4-Methylanilino)-5-[[(2-methylthiazol-4-yl)methyl]thio]-1,2,4-triazole$ 1,2,4-triazole 334538-98-6P, 3-(4-Methylanilino)-5-(pyridin-2ylmethylthio)-1,2,4-triazole 334538-99-7P, 3-(4-Methylanilino)-5-(furan-2-ylthio)-1,2,4-triazole 334539-00-3P, 3-(4-Methylanilino)-5-(3-

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methylthiophen-2-ylthio)-1,2,4-triazole 334539-01-4P,
3-(4-Methylanilino)-5-(3-chlorothiophen-2-v1thio)-1,2,4-triazole
334539-02-5P, 3-(4-Methylanilino)-5-(5-methylthiophen-2-ylthio)-
1,2,4-triazole 334539-03-6P, 3-(4-Methylanilino)-5-(5-
chlorothiophen-2-ylthio)-1,2,4-triazole 334539-04-7P,
5-[[[5-(p-Tolylamino)-4H-[1,2,4]triazol-3-y1]sulfanyl]methyl]furan-2-
carboxylic acid ethyl ester 334539-05-8P, 3-(4-Methylanilino)-5-
(5-bromothiophen-2-vlthio)-1,2,4-triazole 334539-06-9P,
5-[[[5-(p-Tolvlamino)-4H-[1,2,4]triazol-3-vl]sulfanvl]methvl]furan-2-
carbaldehyde 334539-07-0P, 3-(4-Methylanilino)-5-(thiophen-3-
ylthio)-1,2,4-triazole 334539-08-1P, 3-(4-Methylanilino)-5-(furan-3-
ylthio)-1,2,4-triazole
                       334539-09-2P, 3-(2-Methylanilino)-5-benzylthio-
1,2,4-triazole 334539-10-5P, 3-(2-Methylanilino)-5-(thiophen-2-
ylthio)-1,2,4-triazole 334539-11-6P, 3-(2-Methylanilino)-5-
(cyclohexylmethylthio)-1,2,4-triazole 334539-12-7P, 3-(2-Methylanilino)-
5-(pyridin-4-ylmethylthio)-1,2,4-triazole 334539-13-8P,
3-(2-Methylanilino)-5-(2-methyl-2-butenylthio)-1,2,4-triazole
334539-14-9P, 3-(2-Methylanilino)-5-(2-fluorobenzylthio)-1,2,4-triazole
334539-15-0P, 3-(2-Methylanilino)-5-[[(5-methylisoxazol-3-yl)methyl]thio]-
1,2,4-triazole
                334539-16-1P, 3-(2-Methylanilino)-5-(2-methylbenzylthio)-
                 334539-17-2P, 3-(2-Methylanilino)-5-(3,4-
1,2,4-triazole
difluorobenzvlthio)-1,2,4-triazole
                                    334539-18-3P, 3-(2-Methylanilino)-5-
                                      334539-19-4P, 3-(2-Methylanilino)-5-
(2-methoxybenzylthio)-1,2,4-triazole
[[(2-methylthiazol-4-vl)methyl]thio]-1,2,4-triazole
                                                     334539-20-7P.
3-(2-Methylanilino)-5-(pyridin-2-ylmethylthio)-1,2,4-triazole
334539-21-8P, 3-(2-Methylanilino)-5-(furan-2-ylthio)-1,2,4-triazole
334539-22-9P, 3-(2-Methylanilino)-5-(3-methylthiophen-2-ylthio)-
1,2,4-triazole 334539-23-0P, 3-(2-Methylanilino)-5-(3-
chlorothiophen-2-ylthio)-1,2,4-triazole 334539-24-1P,
3-(2-Methylanilino)-5-(5-methylthiophen-2-ylthio)-1,2,4-triazole
334539-25-2P, 3-(2-Methylanilino)-5-(5-chlorothiophen-2-ylthio)-
1,2,4-triazole
                334539-26-3P, 5-[[[5-(o-Tolylamino)-4H-[1,2,4]triazol-3-
vl]sulfanyl]methyl]furan-2-carboxylic acid ethyl ester
334539-27-4P, 3-(2-Methylanilino)-5-(5-bromothiophen-2-ylthio)-
                 334539-28-5P, 5-[[[5-(o-Tolylamino)-4H-[1,2,4]triazol-3-
1,2,4-triazole
yl]sulfanyl]methyl]furan-2-carbaldehyde 334539-29-6P,
3-(2-Methylanilino)-5-(thiophen-3-ylthio)-1,2,4-triazole
                                                           334539-30-9P.
3-(2-Methylanilino)-5-(furan-3-ylthio)-1,2,4-triazole 334539-31-0P,
3-(4-Chloroanilino)-5-benzylthio-1,2,4-triazole 334539-32-1P,
3-(4-Chloroanilino)-5-(thiophen-2-vlthio)-1,2,4-triazole
                                                           334539-33-2P,
3-(4-Chloroanilino)-5-(cyclohexylmethylthio)-1,2,4-triazole
334539-34-3P, 3-(4-Chloroanilino)-5-(pyridin-4-ylmethylthio)-1,2,4-
triazole
          334539-35-4P, 3-(4-Chloroanilino)-5-(2-methyl-2-butenylthio)-
1.2.4-triazole
                334539-36-5P, 3-(4-Chloroanilino)-5-(2-fluorobenzylthio)-
1,2,4-triazole
                 334539-37-6P, 3-(4-Chloroanilino)-5-[[(5-methylisoxazol-3-
vl)methvl]thio]-1,2,4-triazole
                                 334539-38-7P, 3-(4-Chloroanilino)-5-(2-
methylbenzylthio)-1,2,4-triazole
                                  334539-39-8P, 3-(4-Chloroanilino)-5-
(3,4-difluorobenzylthio)-1,2,4-triazole
                                          334539-40-1P,
3-(4-Chloroanilino)-5-(2-methoxybenzylthio)-1,2,4-triazole
                                                             334539-41-2P.
3-(4-Chloroanilino)-5-[[(2-methylthiazol-4-yl)methyl]thio]-1,2,4-triazole
334539-42-3P, 3-(4-Chloroanilino)-5-(pyridin-2-ylmethylthio)-1,2,4-
triazole 334539-44-5P, 3-(4-Methoxyanilino)-5-(thiophen-2-
ylthio)-1,2,4-triazole 334539-45-6P, 3-(4-Methoxyanilino)-5-(cyclohexylmethylthio)-1,2,4-triazole 334539-46-7P, 3-(4-Methoxyanilino)
                                        334539-46-7P, 3-(4-Methoxyanilino)-
5-(pyridin-4-ylmethylthio)-1,2,4-triazole
                                           334539-47-8P.
3-(4-Methoxyanilino)-5-(2-methyl-2-butenylthio)-1,2,4-triazole
334539-48-9\bar{P}, 3-(4-Methoxyanilino)-5-(2-fluorobenzylthio)-1,2,4-triazole
334539-49-0P, 3-(4-Methoxyanilino)-5-[[(5-methylisoxazol-3-y1)methyl]thio]-
1,2,4-triazole
                 334539-50-3P, 3-(4-Methoxyanilino)-5-(2-methylbenzylthio)-
                 334539-51-4P, 3-(4-Methoxyanilino)-5-(3,4-
1,2,4-triazole
difluorobenzylthio)-1,2,4-triazole 334539-52-5P, 3-(4-Methoxyanilino)-5-
(2-methoxybenzylthio)-1,2,4-triazole 334539-53-6P, 3-(4-Methoxyanilino)-
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5-[[(2-methylthiazol-4-yl)methyl]thio]-1,2,4-triazole 334539-54-7P,
3-(4-Methoxyanilino)-5-(pyridin-2-ylmethylthio)-1,2,4-triazole
334539-55-8P, 3-(4-Methoxyanilino)-5-(3-chlorothiophen-2-ylthio)-
1,2,4-triazole 334539-56-9P, 3-(4-Methoxyanilino)-5-(5-
chlorothiophen-2-ylthio)-1,2,4-triazole 334539-57-0P,
4-(5-Benzylthio-1H-[1,2,4]triazol-3-ylamino)benzoic acid methyl ester
334539-58-1P, 4-[[5-[(Cyclohexylmethyl)thio]-1H-[1,2,4]triazol-3-
vl]amino]benzoic acid methyl ester 334539-59-2P, 4-[[5-[(Pyridin-4-
vlmethvl)thiol-1H-[1,2,4]triazol-3-vl]aminolbenzoic acid methvl ester
334539-60-5P, 4-[[5-[(2-Methyl-2-butenyl)thio]-1H-[1,2,4]triazol-3-
vllaminolbenzoic acid methyl ester 334539-61-6P, 4-115-(2-
Fluorobenzylthio)-1H-[1,2,4]triazol-3-yl]amino]benzoic acid methyl ester
334539-62-7P, 4-[[5-[[(5-Methylisoxazol-3-yl)methyl]thio]-1H-
[1,2,4]triazol-3-vl]amino|benzoic acid methyl ester 334539-63-8P,
4-[[5-(2-Methylbenzylthio)-1H-[1,2,4]triazol-3-yl]amino]benzoic acid
methyl ester 334539-64-9P, 4-[[5-(3-Methoxybenzylthio)-1H-[1,2,4]triazol-
3-y1]amino]benzoic acid methyl ester 334539-65-0P, 4-[[5-(3,4-
Difluorobenzylthio)-1H-[1,2,4]triazol-3-yl]amino]benzoic acid methyl ester
334539-66-1P, 4-[[5-(2-Methoxybenzylthio)-1H-[1,2,4]triazol-3-
vl]amino]benzoic acid methyl ester 334539-67-2P, 4-[[5-[[(2-
Methylthiazol-4-vl)methyl|thio|-1H-[1,2,4]triazol-3-vl]amino|benzoic acid
methvl ester
              334539-68-3P, 4-[[5-(Pyridin-2-vlmethylthio)-1H-
[1,2,4]triazol-3-yl]amino]benzoic acid methyl ester 334539-69-4P, 3-(3,4-Dimethoxyanilino)-5-benzylthio-1,2,4-triazole 334539-70-7P,
3-(3,4-Dimethoxyanilino)-5-(3-methoxybenzylthio)-1,2,4-triazole
334539-71-8P, 3-(3,4-Dimethoxyanilino)-5-(cyclohexylmethylthio)-1,2,4-
          334539-72-9P, 3-(3,4-Dimethoxyanilino)-5-(pyridin-4-
triazole
ylmethylthio)-1,2,4-triazole 334539-73-0P, 3-(3,4-Dimethoxyanilino)-5-(2-
methyl-2-butenylthio)-1,2,4-triazole
                                      334539-74-1P, 3-(3,4-
Dimethoxyanilino)-5-(2-fluorobenzylthio)-1,2,4-triazole 334539-75-2P,
3-(3,4-Dimethoxyanilino)-5-[[(5-methylisoxazol-3-yl)methyl]thio]-1,2,4-
           334539-76-3P, 3-(3,4-Dimethoxyanilino)-5-(2-methylbenzylthio)-
triazole
1,2,4-triazole
                334539-77-4P, 3-(3,4-Dimethoxyanilino)-5-(3,4-
difluorobenzylthio)-1,2,4-triazole 334539-78-5P, 3-(3,4-
                                                             334539-79-6P,
Dimethoxyanilino)-5-(2-methoxybenzylthio)-1,2,4-triazole
3-(3,4-Dimethoxyanilino)-5-[[(2-methylthiazol-4-yl)methyl]thio]-1,2,4-
          334539-80-9P, 3-(3,4-Dimethoxyanilino)-5-(pyridin-2-
ylmethylthio)-1,2,4-triazole 334539-81-0P, 3-(3,4-
Dimethoxyanilino)-5-(thiophen-2-ylthio)-1,2,4-triazole
                                                          334539-82-1P.
3-(2-Phenylanilino)-5-benzylthio-1,2,4-triazole
                                                  334539-83-2P,
3-(2-Phenylanilino)-5-(3-methoxybenzylthio)-1,2,4-triazole
                                                              334539-84-3P,
3-(2-Phenylanilino)-5-(cyclohexylmethylthio)-1,2,4-triazole
334539-85-4P, 3-(2-Phenylanilino)-5-(pyridin-4-ylmethylthio)-1,2,4-
triazole
           334539-86-5P, 3-(2-Phenylanilino)-5-(2-methyl-2-butenylthio)-
1,2,4-triazole
                 334539-87-6P, 3-(2-Phenylanilino)-5-(2-fluorobenzylthio)-
1,2,4-triazole
                 334539-88-7P, 3-(2-Phenylanilino)-5-[[(5-methylisoxazol-3-
v1)methv1]thio]-1,2,4-triazole 334539-89-8P, 3-(2-Phenvlanilino)-5-(2-
methylbenzylthio)-1,2,4-triazole 334539-90-1P, 3-(2-Phenylanilino)-5-
(3,4-difluorobenzylthio)-1,2,4-triazole
                                          334539-91-2P.
3-(2-Phenylanilino)-5-(2-methoxybenzylthio)-1,2,4-triazole
                                                              334539-92-3P.
3-(2-Phenylanilino)-5-[[(2-methylthiazol-4-yl)methyl]thio]-1,2,4-triazole
334539-93-4P, 3-(2-Phenylanilino)-5-(thiophen-2-ylthio)-1,2,4-
           334539-94-5P, [5-(Benzylthio)-1H-[1,2,4]triazol-3-yl](pyridin-3-
triazole
y1) amine 334539-95-6P, [5-(3-Methoxybenzylthio)-1H-[1,2,4]triazol-3-y1] (pyridin-3-y1) amine 334539-96-7P, [5-(Cyclohexylmethylthio)-1H-
[1,2,4]triazol-3-yl](pyridin-3-yl)amine 334539-97-8P,
[5-(Pyridin-4-ylmethylthio)-1H-[1,2,4]triazol-3-yl](pyridin-3-yl)amine
334539-98-9P, [5-(2-Methyl-2-butenylthio)-1H-[1,2,4]triazol-3-yl](pyridin-
3-v1)amine
             334539-99-0P, [5-(2-Fluorobenzylthio)-1H-[1,2,4]triazol-3-
yl](pyridin-3-yl)amine 334540-00-0P, [5-[[(5-Methylisoxazol-3-
yl)methyl]thio]-1H-[1,2,4]triazol-3-yl](pyridin-3-yl)amine 334540-01-1P,
[5-(2-Methylbenzylthio)-1H-[1,2,4]triazol-3-yl](pyridin-3-yl)amine
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334540-02-2P, [5-(3,4-Difluorobenzylthio)-1H-[1,2,4]triazol-3-yl] (pyridin-
            334540-03-3P, [5-(2-Methoxybenzylthio)-1H-[1,2,4]triazol-3-
3-v1)amine
v1](pvridin-3-v1)amine
                        334540-04-4P, [5-(Pyridin-2-ylmethylthio)-1H-
[1,2,4]triazol-3-vl](pvridin-3-vl)amine 334540-05-5P,
[5-[(2-Methylthiazol-4-yl)methyl]thio]-1H-[1,2,4]triazol-3-yl](pyridin-3-yl)
          334540-07-7P, [5-(Thiophen-2-ylthio)-1H-[1,2,4]triazol-3-
yl](pyridin-3-yl)amine 334540-09-9P, 3-(2-Ethylanilino)-5-benzylthio-
1,2,4-triazole 334540-11-3P, 3-(2-Ethylanilino)-5-(thiophen-2-
vlthio)-1,2,4-triazole 334540-13-5P, 3-(2-Ethylanilino)-5-(4-
fluorobenzylthio)-1,2,4-triazole 334540-15-7P, 3-(2-Ethylanilino)-5-(3,4-
difluorobenzylthio)-1,2,4-triazole 334540-17-9P, 3-(2-Ethylanilino)-5-(2-
methyl-2-butenylthio)-1,2,4-triazole
                                     334540-18-0P, 3-(2-Ethylanilino)-5-
(2-fluorobenzylthio)-1,2,4-triazole
                                     334540-19-1P, 3-(2-Ethylanilino)-5-
(2-methylbenzylthio)-1,2,4-triazole
                                    334540-20-4P,
3-(2-Ethylanilino)-5-(2-chlorobenzylthio)-1,2,4-triazole
                                                          334540-21-5P.
3-(2-Ethylanilino)-5-(4-methoxybenzylthio)-1,2,4-triazole 334540-22-6P,
3-(2-Ethylanilino)-5-(3,4-methylenedioxybenzylthio)-1,2,4-triazole
334540-23-7P, 3-(2-Ethylanilino)-5-[[(5-methylisoxazol-3-yl)methyl]thio]-
1,2,4-triazole 334540-24-8P, 3-(2-Ethylanilino)-5-(pyridin-2-
vlmethylthio)-1,2,4-triazole
                             334540-25-9P, 3-(2-Ethylanilino)-5-(2-
methoxybenzylthio)-1,2,4-triazole 334540-26-0P, 3-(2-Methoxyanilino)-5-
benzylthio-1,2,4-triazole 334540-27-1P, 3-(2-Methoxyanilino)-5-
(thiophen-2-ylthio)-1,2,4-triazole 334540-28-2P, 3-(2-Methoxyanilino)-5-
                                    334540-29-3P, 3-(2-Methoxyanilino)-5-
(4-fluorobenzylthio)-1,2,4-triazole
(cyclohexylmethylthio)-1,2,4-triazole 334540-30-6P, 3-(2-Methoxyanilino)-
5-(3,4-difluorobenzylthio)-1,2,4-triazole
                                           334540-31-7P.
3-(2-Methoxyanilino)-5-(2-methyl-2-butenylthio)-1,2,4-triazole
33\overline{4}540-32-8\overline{P}, 3-(2-Methoxyanilino)-5-(2-fluorobenzylthio)-1,2,4-triazole
334540-33-9P, 3-(2-Methoxyanilino)-5-(2-methylbenzylthio)-1,2,4-triazole
334540-34-0P, 3-(2-Methoxyanilino)-5-(2-chlorobenzylthio)-1,2,4-triazole
334540-35-1P, 3-(2-Methoxyanilino)-5-(4-methoxybenzylthio)-1,2,4-triazole
334540-36-2P, 3-(2-Methoxyanilino)-5-(3,4-methylenedioxybenzylthio)-1,2,4-
          334540-37-3P, 3-(2-Methoxyanilino)-5-[[(5-methylisoxazol-3-
triazole
vl)methvl]thio]-1,2,4-triazole
                               334540-38-4P, 3-(2-Methoxyanilino)-5-
(pyridin-2-ylmethylthio)-1,2,4-triazole
                                         334540-39-5P,
3-(2-Methoxyanilino)-5-(2-methoxybenzylthio)-1,2,4-triazole
334540-40-8P, 3-(2-Methoxyanilino)-5-(furan-2-ylthio)-1,2,4-triazole
334540-41-9P, 3-(2-Methoxyanilino)-5-(3-methylthiophen-2-ylthio)-
1,2,4-triazole 334540-42-0P, 3-(2-Methoxyanilino)-5-(3-
chlorothiophen-2-vlthio)-1,2,4-triazole 334540-43-1P,
3-(2-Methoxvanilino)-5-(5-methylthiophen-2-vlthio)-1,2,4-triazole
334540-44-2P, 3-(2-Methoxyanilino)-5-(5-chlorothiophen-2-vlthio)-
1,2,4-triazole 334540-45-3P, 5-[[[5-(2-Methoxyphenylamino)-4H-
[1,2,4]triazol-3-y1]sulfany1]methy1]furan-2-carboxylic acid ethyl ester
334540-46-4P, 3-(2-Methoxyanilino)-5-(5-bromothiophen-2-ylthio)-
1,2,4-triazole 334540-47-5P, 3-(2-Methoxyanilino)-5-(thiophen-3-
vlthio)-1,2,4-triazole 334540-48-6P, 3-(2-Methoxyanilino)-5-(furan-3-
                       334540-49-7P, 3-(2-Isopropylanilino)-5-benzylthio-
vlthio)-1,2,4-triazole
1,2,4-triazole 334540-50-0P, 3-(2-Isopropylanilino)-5-(thiophen-
2-ylthio)-1,2,4-triazole 334540-51-1P, 3-(2-Isopropylanilino)-5-(4-
                                  334540-52-2P, 3-(2-Isopropylanilino)-5-
fluorobenzylthio)-1,2,4-triazole
(cyclohexylmethylthio)-1,2,4-triazole
                                       334540-53-3P, 3-(2-
Isopropylanilino)-5-(3,4-difluorobenzylthio)-1,2,4-triazole
334540-54-4P, 3-(2-Isopropylanilino)-5-(2-methyl-2-butenylthio)-1,2,4-
triazole
          334540-55-5P, 3-(2-Isopropylanilino)-5-(2-fluorobenzylthio)-
1.2.4-triazole
                334540-56-6P, 3-(2-Isopropylanilino)-5-(2-
methylbenzylthio)-1,2,4-triazole
                                  334540-57-7P, 3-(2-Isopropylanilino)-5-
(2-chlorobenzylthio)-1,2,4-triazole
                                     334540-58-8P, 3-(2-Isopropylanilino)-
5-(4-methoxybenzylthio)-1,2,4-triazole 334540-59-9P,
3-(2-Isopropylanilino)-5-(3,4-methylenedioxybenzylthio)-1,2,4-triazole
334540-60-2P, 3-(2-Isopropylanilino)-5-[[(5-methylisoxazol-3-
yl)methyl]thio]-1,2,4-triazole 334540-61-3P, 3-(2-Isopropylanilino)-5-
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(pyridin-2-ylmethylthio)-1,2,4-triazole
                                               334540-62-4P.
    3-(2-Isopropylanilino)-5-(2-methoxybenzylthio)-1,2,4-triazole
    334540-63-5P, 3-(2-Isopropylanilino)-5-(furan-2-ylthio)-1,2,4-triazole
    334540-64-6P, 3-(2-Isopropylanilino)-5-(3-methylthiophen-2-ylthio)-
    1,2,4-triazole 334540-65-7P, 3-(2-Isopropylanilino)-5-(3-
    chlorothiophen-2-ylthio)-1,2,4-triazole 334540-66-8P,
    3-(2-Isopropylanilino)-5-(5-methylthiophen-2-ylthio)-1,2,4-triazole
    334540-67-9P, 3-(2-Isopropylanilino)-5-(5-chlorothiophen-2-ylthio)-
    1,2,4-triazole
                    334540-68-0P, 5-[[[5-(2-Isopropylphenylamino)-4H-
     [1,2,4]triazol-3-vl]sulfanvl]methvl]furan-2-carboxvlic acid ethvl ester
    334540-69-1P, 5-[[[5-(2-Isopropylanilino)-4H-[1,2,4]triazol-3-
    yl]sulfanyl]methyl]furan-2-carbaldehyde 334540-70-4P,
    3-(2-Isopropylanilino)-5-(thiophen-3-ylthio)-1,2,4-triazole
    334540-71-5P, 3-(2-Isopropylanilino)-5-(furan-3-ylthio)-1,2,4-triazole
    334540-72-6P, 3-(3-Methylanilino)-5-benzylthio-1,2,4-triazole
    334540-73-7P, 3-(3-Methylanilino)-5-(thiophen-2-ylthio)-1,2,4-
              334540-74-8P, 3-(3-Methylanilino)-5-(cyclohexylmethylthio)-
    triazole
     1,2,4-triazole
                     334540-75-9P, 3-(3-Methylanilino)-5-(4-fluorobenzylthio)-
                     334540-76-0P, 3-(3-Methylanilino)-5-(2-methyl-2-
     1,2,4-triazole
    butenylthio)-1,2,4-triazole 334540-77-1P, 3-(3-Methylanilino)-5-(2-
    fluorobenzylthio)-1,2,4-triazole 334540-78-2P, 3-(3-Methylanilino)-5-
     [[(5-methylisoxazol-3-v1)methyl]thio]-1,2,4-triazole 334540-79-3P,
                                                                334540-80-6P
    3-(3-Methylanilino)-5-(2-methylbenzylthio)-1,2,4-triazole
. 3-(3-Methylanilino)-5-(3,4-difluorobenzylthio)-1,2,4-triazole 334540-81-7P.
    3-(3-Methylanilino)-5-(2-methoxybenzylthio)-1,2,4-triazole
                                                                  334540-82-8P,
    3-(3-Methylanilino)-5-(2-chlorobenzylthio)-1,2,4-triazole 334540-83-9P,
    3-(3-Methylanilino)-5-(4-methoxybenzylthio)-1,2,4-triazole
                                                                 334540-84-0P.
    3-(3-Methylanilino)-5-(3,4-methylenedioxybenzylthio)-1,2,4-triazole
    334540-85-1P, 3-(3-Methylanilino)-5-(pyridin-2-ylmethylthio)-1,2,4-
    triazole
               334540-86-2P, 3-(3-Methylanilino)-5-(furan-2-ylthio)-1,2,4-
    triazole 334540-87-3P, 3-(3-Methylanilino)-5-(3-methylthiophen-2-
    ylthio)-1,2,4-triazole 334540-88-4P, 3-(3-Methylanilino)-5-(3-
    chlorothiophen-2-vlthio)-1,2,4-triazole
    RL: BAC (Biological activity or effector, except adverse); BSU (Biological
    study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
    BIOL (Biological study); PREP (Preparation); USES (Uses)
       (drug candidate; preparation of anilino(benzylthio)triazole derivs. as
       MetAP2 inhibitors)
    334540-89-5P, 3-(3-Methylanilino)-5-(5-methylthiophen-2-ylthio)-
    1,2,4-triazole 334540-90-8P, 3-(3-Methylanilino)-5-(5-
    chlorothiophen-2-vlthio)-1,2,4-triazole
                                              334540-91-9P,
    5-[[[5-(3-Methylphenylamino)-4H-[1,2,4]triazol-3-yl]sulfanyl]methyl]furan-
    2-carboxylic acid ethyl ester 334540-92-0P, 3-(3-Methylanilino)-
    5-(5-bromothiophen-2-ylthio)-1,2,4-triazole 334540-93-1P,
    5-[[[5-(3-Methylphenylamino)-4H-[1,2,4]triazol-3-yl]sulfanyl]methyl]furan-
    2-carbaldehyde 334540-94-2P, 3-(3-Methylanilino)-5-(thiophen-3-
    vlthio)-1,2,4-triazole 334540-95-3P, 3-(3-Methylanilino)-5-(furan-3-
                             334540-96-4P, 3-(4-n-Butylanilino)-5-benzylthio-
    vlthio)-1,2,4-triazole
    1,2,4-triazole 334540-97-5P, 3-(4-n-Butylanilino)-5-(thiophen-2-
    ylthio)-1,2,4-triazole 334540-98-6P, 3-(4-n-Butylanilino)-5-(4-
    fluorobenzylthio)-1,2,4-triazole
                                       334540-99-7P, 3-(4-n-Butylanilino)-5-
     (3,4-difluorobenzylthio)-1,2,4-triazole
                                               334541-00-3P.
    3-(4-n-Butvlanilino)-5-(2-methvl-2-butenvlthio)-1,2,4-triazole
    334541-01-4P, 3-(4-n-Butylanilino)-5-(2-fluorobenzylthio)-1,2,4-triazole <math>334541-02-5P, 3-(4-n-Butylanilino)-5-(2-methylbenzylthio)-1,2,4-triazole
    334541-03-6P, 3-(4-n-Butylanilino)-5-(2-chlorobenzylthio)-1,2,4-triazole
    334541-04-7P, 3-(4-n-Butylanilino)-5-(4-methoxybenzylthio)-1,2,4-triazole
    334541-05-8P, 3-(4-n-Butylanilino)-5-(3,4-methylenedioxybenzylthio)-1,2,4-
    triazole
               334541-06-9P, 3-(4-n-Butylanilino)-5-[[(5-methylisoxazol-3-
    yl)methyl]thio]-1,2,4-triazole
                                    334541-07-0P, 3-(4-n-Butylanilino)-5-
    (pyridin-2-ylmethylthio)-1,2,4-triazole
                                             334541-08-1P,
    3-(4-n-Butylanilino)-5-(2-methoxybenzylthio)-1,2,4-triazole
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334541-09-2P, 3-(2,4-Dimethoxyanilino)-5-benzylthio-1,2,4-triazole
334541-10-5P, 3-(2,4-Dimethoxyanilino)-5-(thiophen-2-ylthio)-1,2,4-
          334541-11-6P, 3-(2,4-Dimethoxyanilino)-5-(4-fluorobenzylthio)-
triazole
1,2,4-triazole
                334541-12-7P, 3-(2,4-Dimethoxyanilino)-5-
(cyclohexylmethylthio)-1,2,4-triazole
                                      334541-13-8P, 3-(2,4-
Dimethoxyanilino)-5-(3,4-difluorobenzylthio)-1,2,4-triazole
334541-14-9P, 3-(2,4-Dimethoxyanilino)-5-(2-methyl-2-butenylthio)-1,2,4-
         334541-15-0P, 3-(2,4-Dimethoxyanilino)-5-(2-fluorobenzylthio)-
               334541-16-1P, 3-(2,4-Dimethoxyanilino)-5-(2-
1,2,4-triazole
methylbenzylthio)-1,2,4-triazole 334541-17-2P, 3-(2,4-Dimethoxyanilino)-
5-(2-chlorobenzylthio)-1,2,4-triazole 334541-18-3P, 3-(2,4-
Dimethoxyanilino)-5-(4-methoxybenzylthio)-1,2,4-triazole 334541-19-4P,
3-(2,4-Dimethoxyanilino)-5-(3,4-methylenedioxybenzylthio)-1,2,4-triazole
334541-20-7P, 3-(2,4-Dimethoxyanilino)-5-[[(5-methylisoxazol-3-
yl)methyl]thio]-1,2,4-triazole 334541-21-8P, 3-(2,4-Dimethoxyanilino)-5-
(pyridin-2-ylmethylthio)-1,2,4-triazole
                                        334541-22-9P,
3-(2,4-Dimethoxyanilino)-5-(2-methoxybenzylthio)-1,2,4-triazole
334541-23-0P, 3-(2-Methyl-4-methoxyanilino)-5-benzylthio-1,2,4-triazole
334541-24-1P, 3-(2-Methyl-4-methoxyanilino)-5-(thiophen-2-ylthio)-
1,2,4-triazole
               334541-25-2P, 3-(2-Methyl-4-methoxyanilino)-5-(4-
fluorobenzylthio)-1,2,4-triazole 334541-26-3P, 3-(2-Methyl-4-
methoxyanilino)-5-(cyclohexylmethylthio)-1,2,4-triazole 334541-27-4P,
3-(2-Methyl-4-methoxyanilino)-5-(3,4-difluorobenzylthio)-1,2,4-triazole
334541-28-5P, 3-(2-Methyl-4-methoxyanilino)-5-(2-methyl-2-butenylthio)-
1.2.4-triazole
                334541-29-6P, 3-(2-Methyl-4-methoxyanilino)-5-(2-
fluorobenzylthio)-1,2,4-triazole
                                 334541-30-9P, 3-(2-Methyl-4-
methoxyanilino)-5-(2-methylbenzylthio)-1,2,4-triazole 334541-31-0P,
3-(2-Methyl-4-methoxyanilino)-5-(2-chlorobenzylthio)-1,2,4-triazole
334541-32-1P, 3-(2-Methyl-4-methoxyanilino)-5-(4-methoxybenzylthio)-1,2,4-
triazole
          334541-33-2P, 3-(2-Methyl-4-methoxyanilino)-5-(3,4-
methylenedioxybenzylthio)-1,2,4-triazole
                                         334541-34-3P,
3-(2-Methyl-4-methoxyanilino)-5-[[(5-methylisoxazol-3-yl)methyl]thio]-
                334541-35-4P, 3-(2-Methyl-4-methoxyanilino)-5-(pyridin-2-
1,2,4-triazole
vlmethvlthio)-1,2,4-triazole
                             334541-36-5P, 3-(2-Methyl-4-methoxyanilino)-
5-(2-methoxybenzylthio)-1,2,4-triazole 334541-38-7P,
3-(2,6-Dimethylanilino)-5-(4-fluorobenzylthio)-1,2,4-triazole
334541-39-8P, 3-(2,6-Dimethylanilino)-5-(cyclohexylmethylthio)-1,2,4-
triazole
          334541-41-2P, 3-(2,6-Dimethylanilino)-5-(3,4-
difluorobenzylthio)-1,2,4-triazole
                                    334541-44-5P, 3-(2,6-Dimethylanilino)-
5-(2-methyl-2-butenylthio)-1,2,4-triazole
                                           334541-45-6P,
3-(2,6-Dimethylanilino)-5-(2-fluorobenzylthio)-1,2,4-triazole
334541-47-8P, 3-(2,6-Dimethylanilino)-5-(2-methylbenzylthio)-1,2,4-
          334541-48-9P, 3-(2,6-Dimethylanilino)-5-(2-chlorobenzylthio)-
1.2.4-triazole
                334541-50-3P, 3-(4-Fluoroanilino)-5-(furan-2-ylthio)-
1,2,4-triazole 334541-51-4P, 3-(4-Fluoroanilino)-5-(3-
methylthiophen-2-vlthio)-1,2,4-triazole 334541-53-6P,
3-(4-Fluoroanilino)-5-(3-chlorothiophen-2-vlthio)-1,2,4-triazole
334541-55-8P, 3-(4-Fluoroanilino)-5-(5-methylthiophen-2-ylthio)-
1,2,4-triazole 334541-56-9P, 3-(4-Fluoroanilino)-5-(5-
chlorothiophen-2-ylthio)-1,2,4-triazole 334541-57-0P.
5-[[[5-(4-Fluorophenylamino)-4H-[1,2,4]triazol-3-yl]sulfanyl]methyl]furan-
2-carboxylic acid ethyl ester 334541-58-1P, 3-(4-Fluoroanilino)-
5-(5-bromothiophen-2-vlthio)-1,2,4-triazole 334541-59-2P,
5-[[[5-(4-Fluorophenylamino)-4H-[1,2,4]triazol-3-yl]sulfanyl]methyl]furan-
2-carbaldehyde 334541-60-5P, 3-(4-Fluoroanilino)-5-(thiophen-3-
ylthio)-1,2,4-triazole 334541-61-6P, 3-(4-Fluoroanilino)-5-(furan-3-
ylthio)-1,2,4-triazole
                        334615-06-4P, 3-(N-Methylanilino)-5-benzylthio-
1,2,4-triazole
                334615-07-5P, 3-(N-Ethylanilino)-5-benzylthio-1,2,4-
triazole
          334615-08-6P, 3-(N-n-Propylanilino)-5-benzylthio-1,2,4-triazole
334615-09-7P, 3-(N-n-Butylanilino)-5-benzylthio-1,2,4-triazole
334615-10-0P, 3-(N-Isopropylanilino)-5-benzylthio-1,2,4-triazole
334615-11-1P, 3-(N-Allylanilino)-5-benzylthio-1,2,4-triazole
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334615-12-2P, 3-(N-Benzylanilino)-5-benzylthio-1,2,4-triazole
334615-13-3P, 3-[N-[(Methoxycarbonyl)methyl]anilino]-5-benzylthio-1,2,4-
triazole 334615-14-4P, 3-[N-[(Methoxycarbonyl)methyl]-p-methylanilino]-5-
benzylthio-1,2,4-triazole
                             334615-15-5P, 3-[N-[(Methoxycarbonyl)methyl]-p-
methoxyanilino]-5-benzylthio-1,2,4-triazole 334615-16-6P,
3-[N-[(Methoxycarbonyl)methyl]-2,6-dimethylanilino]-5-benzylthio-1,2,4-
triazole
RL: BAC (Biological activity or effector, except adverse); BSU (Biological
study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
BIOL (Biological study); PREP (Preparation); USES (Uses)
   (drug candidate; preparation of anilino(benzylthio)triazole derivs. as
   MetAP2 inhibitors)
6635-73-0P, 1-Phenyl-2,4-dithiobiuret 16739-02-9P, 3-Anilino-5-mercapto-
1,2,4-triazole 334541-73-0P, 2-Ethyl-1-phenyl-2-isodithiobiuret
334541-74-1P, 3-Anilino-5-benzylthio-1-(ethoxymethyl)-1,2,4-triazole
334541-75-2P, 3-Anilino-5-benzylthio-2-(ethoxymethyl)-1,2,4-triazole
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
   (intermediate; preparation of anilino(benzylthio)triazole derivs. as MetAP2
   inhibitors)
62-56-6, Thiourea, reactions 74-88-4, Methyl iodide, reactions
75-03-6, Ethyl iodide 89-92-9, 2-Methylbenzyl bromide 96-32-2, Methyl
bromoacetate 100-39-0, Benzyl bromide 103-63-9, (2-Bromoethyl)benzene
103-72-0, Phenyl isothiocyanate 106-95-6, Allyl bromide, reactions
107-08-4, 1-Iodopropane 107-82-4, 1-Bromo-3-methylbutane
Hydrazine, reactions 402-49-3, 4-(Trifluoromethyl)benzyl bromide
446-48-0, 2-Fluorobenzyl bromide 459-46-1, 4-Fluorobenzyl bromide 513-38-2, 1-Iodo-2-methylpropane 512-69-8, 1-Iodobutane 585-71-7, (1-Bromoethyl)benzene 611-17-6, 2-Chlorobenzyl bromide 614-69-7,
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o-Tolyl isothiocyanate 617-88-9, 2-Chloromethylfuran 621-30-7, m-Tolyl

10445-91-7, 4-(Chloromethyl)pyridine

39238-07-8,

isothiocyanate 622-59-3, p-Tolyl isothiocyanate 622-95-7, 4-Chlorobenzyl bromide 765-50-4, 2-Chloromethylthiophene 824-94-2, 4-Methoxybenzyl chloride 824-98-6, 3-Methoxybenzyl chloride 870-63-3, 1-Bromo-3-methylbut-2-ene 1201-68-9, 3-Chloromethyl-5-phenyl-1,2,4oxadiazole 1544-68-9, 4-Fluorophenyl isothiocyanate 1623-88-7, 5-Chloromethylfuran-2-carbaldehyde 1642-81-5, 4-(Chloromethyl)benzoic 2131-55-7, p-Chlorophenyl isothiocyanate 2270-59-9. 5-Bromo-2-methyl-2-pentene 2284-20-0, p-Methoxyphenyl isothiocyanate 2528-00-9, 5-Chloromethylfuran-2-carboxylic acid ethyl ester 2550-36-9, Bromomethylcyclohexane 2746-23-8, 3-Chloromethylthiophene 3288-04-8, 2-Methoxyphenyl isothiocyanate 3662-78-0, p-Methoxycarbonylphenyl isothiocyanate 4377-33-7, 2-(Chloromethyl)pyridine 4857-04-9, 2-(Chloromethyl)benzimidazole 7035-02-1, 2-Methoxybenzyl chloride 7311-46-8, 2-Chloromethyl-5-bromothiophene 7496-46-0,

14497-29-1, 3-Chloromethylfuran 17201-43-3, 4-Cyanobenzyl bromide 17452-27-6, 3-Pyridyl isothiocyanate 17969-22-1, 4-Chloromethyl-2-(4chlorophenyl)thiazole 19241-16-8, 2,6-Dimethylphenyl isothiocyanate 19241-19-1, 2-Ethylphenyl isothiocyanate 19394-61-7, 2-Phenylphenyl isothiocyanate 20850-43-5, 3,4-Methylenedioxybenzyl chloride 23165-44-8, 4-n-Butylphenyl isothiocyanate 23784-96-5,

4-Chloromethyl-2-methylthiazole 40046-28-4, 2-Methyl-4methoxyphenylisothiocyanate 52289-93-7, 2-Methoxybenzyl bromide 54777-65-0, 4-Acetamidobenzyl chloride 73789-86-3, 4-Isopropylbenzyl bromide 85118-01-0, 3,4-Difluorobenzyl bromide 92521-25-0, 2-Chloromethyl-3-methylthiophene 112433-47-3, 2-Chloromethyl-3-

2-Chloromethyl-5-chlorothiophene 27129-86-8, 3,5-Dimethylbenzyl bromide 33904-03-9, 2,4-Dimethoxyphenyl isothiocyanate 33904-04-0, 3,4-Dimethoxyphenyl isothiocyanate 34776-73-3, 2-Chloromethyl-5methylthiophene 35166-37-1, 3-(Chloromethyl)-5-methylisoxazole 35223-80-4, Propyl bromoacetate 36176-31-5, 2-Isopropylphenyl isothiocyanate 36255-44-4, 3-Bromo-1,1-dimethoxypropane

8-Bromomethylquinoline

ΙT

```
chlorothiophene
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (precursor; preparation of anilino(benzylthio)triazole derivs. as MetAP2
        inhibitors)
     61229-81-0, Methionine aminopeptidase
     RL: BPR (Biological process); BSU (Biological study, unclassified); MSC
     (Miscellaneous); BIOL (Biological study); PROC (Process)
        (type 2, inhibitors; preparation of anilino(benzylthio)triazole derivs. as
        MetAP2 inhibitors)
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     (FILE 'HOME' ENTERED AT 09:06:39 ON 10 JUL 2008)
     FILE 'REGISTRY' ENTERED AT 09:06:56 ON 10 JUL 2008
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             50 S L1 SAM
L2
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                STRUCTURE UPLOADED
L4
             12 S L3 SAM
L5
            441 S L3 FUL
L6
             8 S L5 AND THIOPHEN?
L7
         172872 S 1.2.4-TRIAZOLE
L8
            393 S L7 AND ANILINO
L9
             57 S L8 AND THIOPHEN?
     FILE 'CAPLUS, MEDLINE, BIOSIS, EMBASE' ENTERED AT 09:30:12 ON 10 JUL 2008
L10
             2 S L9
=> s 15
L11
           97 L5
=> s 111 and bacter?
L12
             1 L11 AND BACTER?
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L12 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER:
                         1996:303917 CAPLUS
DOCUMENT NUMBER:
                         124:342985
ORIGINAL REFERENCE NO.: 124:63699a,63702a
TITLE:
                         Preparation of cephem derivatives as antibacterials
                         ervthromycin
INVENTOR(S):
                         Tawada, Hiroyuki; Myake, Akio; Iwahi, Tomoyuki
PATENT ASSIGNEE(S):
                         Takeda Chemical Industries Ltd, Japan
SOURCE:
                         Jpn. Kokai Tokkvo Koho, 40 pp.
                         CODEN: JKXXAF
DOCUMENT TYPE:
                         Patent
LANGUAGE:
                         Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:
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| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|--------|------------|-----------------|----------|
| | | | | |
| JP 08059669 | A | 19960305 | JP 1995-73897 | 19950330 |
| PRIORITY APPLN. INFO.: | | | JP 1995-73897 A | 19950330 |
| | | | JP 1994-130536 | 19940613 |
| OTHER SOURCE(S): | MARPAT | 124:342985 | | |

GΙ

L12 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2008 ACS on STN

176658-23-4P

176658-28-9P

176658-22-3P

176658-27-8P

AB Title compds. I [Rl = (un)substituted amino; Q = N, CH; R2 = H, (un)substituted hydrocarbyl; A = (un)substituted heterocyclyl; m = 2, 3; n = 0-3 integer] and their salts and esters are prepared Thus, p-methoxybenzyl 7B-amino-3-[2-(2-pyrazinylthio)ethyl]-3-cephem-4-carboxylate (preparation given) was reacted with 2-(2-aminothiazol-4-yl)-2(Z)-trityloxyiminoacetic acid in THF containing 1-hydroxybenzotriazole and DCC to give 76.6% I [Q = CH, R1 = NH2, R2 = trityl, m = 2, n = 0, A = 2-pyrazinyll p-methoxybenzyl ester. This was hydrolyzed to give I [Q, R1, R2, m, n, A same as above] isolated as its sodium salt. This had an IC50 of 0.39 mu/mL against Stanbylococcus aureus.

=> d it.

```
IT
    Bactericides, Disinfectants, and Antiseptics
        (preparation of cephem derivs, as antibacterials)
    176657-69-5P
                  176657-70-8P 176657-71-9P
                                               176657-72-0P
                                                                176657-73-1P
    176657-74-2P
                   176657-75-3P
                                  176657-76-4P
                                                 176657-77-5P
                                                                176657-78-6P
    176657-79-7P
                   176657-80-0P
                                  176657-81-1P
                                                 176657-82-2P
                                                                176657-83-3P
    176657-84-4P
                  176657-85-5P
                                  176657-86-6P
                                                 176657-87-7P
                                                                176657-88-8P
    176657-89-9P
                  176657-90-2P
                                  176657-91-3P
                                                 176657-92-4P
                                                                176657-93-5P
    176657-94-6P
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                                                176657-97-9P
                                                                176657-98-0P
    176657-99-1P
                  176658-00-7P
                                 176658-01-8P
                                                 176658-02-9P
                                                               176658-03-0P
    176658-04-1P
                  176658-05-2P
                                 176658-06-3P
    RL: BAC (Biological activity or effector, except adverse); BSU (Biological
    study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
    BIOL (Biological study); PREP (Preparation); USES (Uses)
        (preparation of cephem derivs, as antibacterials)
IΤ
               824-94-2, p-Methoxybenzyl chloride
                                                   872-35-5.
    2-Mercaptoimidazole
                         1004-39-3, 4,6-Diamino-2-mercaptopyrimidine
    2637-34-5, 2-Mercaptopyridine
                                   2935-90-2, Methyl 3-mercaptopropionate
    3395-91-3, Methyl 3-bromopropionate
                                          4548-45-2, 2-Chloro-5-nitropyridine
    4556-23-4, 4-Mercaptopyridine 4637-24-5, Dimethylformamide dimethyl
             6307-44-4, 2-Amino-4-methyl-6-mercaptopyrimidine
    acetal
                                                               7151-89-5
    23003-22-7, 2-Mercapto-3-hydroxypyridine 24424-99-5, Di-tert-butyl
                  38521-06-1, 2-Mercaptopyrazine
                                                   43201-08-7,
    dicarbonate
                                61607-68-9
                                             69893-92-1, 1,2,3-Thiadiazole-5-
    1,2,4-Thiadiazole-5-thiol
    thiol
            77168-62-8
                         77359-58-1
                                      77780-50-8
                                                   88570-74-5 105275-37-4
    119608-90-1
                                140128-62-7
                                              176658-54-1
                                                            176658-55-2
                  128438-01-7
                                              176658-59-6
    176658-56-3
                  176658-57-4
                                176658-58-5
                                                            176658-60-9
    176658-61-0
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                                176658-63-2
    RL: RCT (Reactant); RACT (Reactant or reagent)
        (preparation of cephem derivs. as antibacterials)
    176658-07-4P
                  176658-08-5P
                                  176658-09-6P
                                                 176658-10-9P
                                                                176658-11-0P
    176658-12-1P
                   176658-13-2P
                                  176658-14-3P
                                                 176658-15-4P
                                                                176658-16-5P
    176658-17-6P
                   176658-18-7P
                                  176658-19-8P
                                                 176658-20-1P
                                                                176658-21-2P
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176658-24-5P

176658-29-0P

176658-25-6P

176658-30-3P

176658-26-7P

176658-31-4P

| 176658-32-5P | 176658-33-6P | 176658-34-7P | 176658-35-8P | 176658-36-9P |
|--------------|--------------|--------------|--------------|--------------|
| 176658-37-0P | 176658-38-1P | 176658-39-2P | 176658-40-5P | |
| 176658-41-6P | 176658-42-7P | 176658-43-8P | 176658-44-9P | 176658-49-4P |
| 176658-45-0P | 176658-46-1P | 176658-47-2P | 176658-48-3P | |
| 176658-50-7P | 176658-51-8P | 176658-52-9P | 176658-53-0P | |
| 176658-65-4P | 1/0030-31-05 | 1/6636-32-9P | 1/6636-33-UP | 1/0030-04-3P |

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of cephem derivs. as antibacterials)

=> FIL REGISTRY

| COST IN U.S. DOLLARS | SINCE FILE | TOTAL |
|--|---------------------|-------------------|
| FULL ESTIMATED COST | ENTRY
45.85 | SESSION
305.65 |
| DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) | SINCE FILE
ENTRY | TOTAL |
| CA SUBSCRIBER PRICE | -2.40 | -2.40 |

FILE 'REGISTRY' ENTERED AT 09:34:33 ON 10 JUL 2008
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STRUCTURE FILE UPDATES: 9 JUL 2008 HIGHEST RN 1033322-45-0 DICTIONARY FILE UPDATES: 9 JUL 2008 HIGHEST RN 1033322-45-0

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TSCA INFORMATION NOW CURRENT THROUGH January 9, 2008.

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

=> S 176658-41-6/RN

L13 1 176658-41-6/RN

=> SET NOTICE 1 DISPLAY

NOTICE SET TO 1 U.S. DOLLAR FOR DISPLAY COMMAND SET COMMAND COMPLETED

=> D L13 SOIDE 1-

YOU HAVE REQUESTED DATA FROM 1 ANSWERS - CONTINUE? Y/(N):Y
THE ESTIMATED COST FOR THIS REQUEST IS 6.65 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:Y

L13 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2008 ACS on STN

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RN
     176658-41-6 REGISTRY
CN
     5-Thia-1-azabicvclo[4.2.0]oct-2-ene-2-carboxylic acid,
     7-[[(1,1-dimethylethoxy)carbonyl]amino]-3-[2-[[5-[[(1,1-
     dimethylethoxy)carbonyl]amino]-1H-1,2,4-triazol-3-yl]thio]ethyl]-8-oxo-,
     diphenylmethyl ester, (6R-trans)- (9CI) (CA INDEX NAME)
    STEREOSEARCH
     C34 H40 N6 O7 S2
MF
SR
    CA
LC
     STN Files: CA, CAPLUS, TOXCENTER
DT.CA CAplus document type: Patent
      Roles from patents: PREP (Preparation); RACT (Reactant or reagent)
Absolute stereochemistry.
          Ph2CH
           0
                                                   OBu-t
                  R
                                     N
                                        N
t.-BuO
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               1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
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NOTICE SET TO OFF FOR DISPLAY COMMAND
SET COMMAND COMPLETED
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L2
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                STRUCTURE UPLOADED
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L4
L5
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              8 S L5 AND THIOPHEN?
L6
L7
         172872 S 1,2,4-TRIAZOLE
L8
            393 S L7 AND ANILINO
L9
             57 S L8 AND THIOPHEN?
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             97 S L5
L12
              1 S L11 AND BACTER?
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SET NOTICE LOGIN DISPLAY

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         43943 METHIONINE
          3828 AMINOPEPTID?
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=> s 114 and staphyloco?
         86689 STAPHYLOCO?
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DUPLICATE IS NOT AVAILABLE IN 'REGISTRY'.
ANSWERS FROM THESE FILES WILL BE CONSIDERED UNIQUE
PROCESSING COMPLETED FOR L15
L16
              5 DUP REM L15 (0 DUPLICATES REMOVED)
=> d ibib abs 1-5
'IBIB' IS NOT A VALID FORMAT FOR FILE 'REGISTRY'
'ABS' IS NOT A VALID FORMAT FOR FILE 'REGISTRY'
The following are valid formats:
Substance information can be displayed by requesting individual
fields or predefined formats. The predefined substance formats
are: (RN = CAS Registry Number)
REG
      - RN
SAM
      - Index Name, MF, and structure - no RN
FIDE
     - All substance data, except sequence data
TDE
       - FIDE, but only 50 names
SQIDE - IDE, plus sequence data
SQIDE3 - Same as SQIDE, but 3-letter amino acid codes are used
SQD
      - Protein sequence data, includes RN
SOD3
     - Same as SQD, but 3-letter amino acid codes are used
SQN
      - Protein sequence name information, includes RN
EPROP - Table of experimental properties
PPROP - Table of predicted properties
PROP
      - EPROP, ETAG, PPROP and SPEC
Any CA File format may be combined with any substance format to
obtain CA references citing the substance. The substance formats
must be cited first. The CA File predefined formats are:
ABS -- Abstract
APPS -- Application and Priority Information
BIB -- CA Accession Number, plus Bibliographic Data
CAN -- CA Accession Number
CBIB -- CA Accession Number, plus Bibliographic Data (compressed)
IND -- Index Data
IPC -- International Patent Classification
PATS -- PI, SO
STD -- BIB, IPC, and NCL
IABS -- ABS, indented, with text labels
IBIB -- BIB, indented, with text labels
ISTD -- STD format, indented
OBIB ----- AN, plus Bibliographic Data (original)
OIBIB ----- OBIB, indented with text labels
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SBIB ----- BIB, no citations
SIBIB ----- IBIB, no citations
The ALL format gives FIDE BIB ABS IND RE, plus sequence data when
it is available.
The MAX format is the same as ALL.
The IALL format is the same as ALL with BIB ABS and IND indented,
with text labels.
For additional information, please consult the following help
messages:
HELP DFIELDS -- To see a complete list of individual display fields.
HELP FORMATS -- To see detailed descriptions of the predefined formats.
ENTER DISPLAY FORMAT (IDE):cn
L16 ANSWER 1 OF 5 REGISTRY COPYRIGHT 2008 ACS on STN
    Methionine aminopeptidase (Staphylococcus aureus aureus strain
    FPR3757 clone USA300 gene map) (9CI) (CA INDEX NAME)
OTHER NAMES:
    GenBank ABD20744
CN
CN
   GenBank ABD20744 (Translated from: GenBank CP000255)
L16 ANSWER 2 OF 5 REGISTRY COPYRIGHT 2008 ACS on STN
   Methionine aminopeptidase (Staphylococcus saprophyticus saprophyticus
     strain ATCC 15305) (9CI) (CA INDEX NAME)
OTHER NAMES:
CN
    GenBank BAE18050
CN
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L16 ANSWER 3 OF 5 REGISTRY COPYRIGHT 2008 ACS on STN
    Methionine aminopeptidase, type I (Staphylococcus epidermidis strain
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OTHER NAMES:
CN GenBank AAW54790
CN GenBank AAW54790 (Translated from: GenBank CP000029)
L16 ANSWER 4 OF 5 REGISTRY COPYRIGHT 2008 ACS on STN
   Methionine aminopeptidase, type I (Staphylococcus aureus aureus
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OTHER NAMES:
CN GenBank AAW38387
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L16 ANSWER 5 OF 5 REGISTRY COPYRIGHT 2008 ACS on STN
    Protein (Staphylococcus aureus methionine aminopeptidase sequence
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OTHER NAMES:
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     FILE 'REGISTRY' ENTERED AT 09:06:56 ON 10 JUL 2008
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             50 S L1 SAM
T.3
               STRUCTURE UPLOADED
T. 4
            12 S L3 SAM
           441 S L3 FUL
1.5
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L6

8 S L5 AND THIOPHEN?

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172872 S 1,2,4-TRIAZOLE
1.8
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1.9
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     FILE 'CAPLUS, MEDLINE, BIOSIS, EMBASE' ENTERED AT 09:30:12 ON 10 JUL 2008
L10
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L13
             1 S 176658-41-6/RN
               SET NOTICE 1 DISPLAY
               SET NOTICE LOGIN DISPLAY
T.14
            460 S METHIONINE (W) AMINOPEPTID?
L15
             5 S L14 AND STAPHYLOCO?
L16
             5 DUP REM L15 (0 DUPLICATES REMOVED)
=> file caplus medline biosis embase
COST IN U.S. DOLLARS
                                                 SINCE FILE
                                                                TOTAL
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FULL ESTIMATED COST
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                                                                335.40
                                                                 TOTAL
DISCOUNT AMOUNTS (FOR OUALIFYING ACCOUNTS)
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CA SUBSCRIBER PRICE
                                                        0.00
                                                                 -2.40
FILE 'CAPLUS' ENTERED AT 09:37:26 ON 10 JUL 2008
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FILE 'MEDLINE' ENTERED AT 09:37:26 ON 10 JUL 2008
FILE 'BIOSIS' ENTERED AT 09:37:26 ON 10 JUL 2008
Copyright (c) 2008 The Thomson Corporation
FILE 'EMBASE' ENTERED AT 09:37:26 ON 10 JUL 2008
Copyright (c) 2008 Elsevier B.V. All rights reserved.
=> s methionine (w) aminopeptid?
         1363 METHIONINE (W) AMINOPEPTID?
=> s 117 and staphyloc?
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L18
=> dup rem 118
PROCESSING COMPLETED FOR L18
L19
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=> d ibib abs 1-20
L19 ANSWER 1 OF 20 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
ACCESSION NUMBER: 2007:555596 BIOSIS
DOCUMENT NUMBER:
                   PREV200700551104
TITLE:
                   Activity-based protein profiling for type I
                   methionine aminopeptidase by using
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photo-affinity trimodular probes.

Author]; Nana, Fa-Jun

Qiu, Wen-Wei; Xu, Jie; Li, Jing-Ya; Li, Jia [Reprint

Shanghai Inst Mat Med, Chinese Natl Ctr Drug Screening, 189 Guo Shou Jing Rd, Shanghai 201203, Peoples R China jliëmoil.shcnc.ac.cn; fjnan@moil.shcnc.ac.cn

AUTHOR(S):

CORPORATE SOURCE:

SOURCE: ChemBioChem, (AUG 13 2007) Vol. 8, No. 12, pp. 1351-1358.

ISSN: 1439-4227.

DOCUMENT TYPE: Article LANGUAGE: English

ENTRY DATE: Entered STN: 24 Oct 2007

Last Updated on STN: 24 Oct 2007

L19 ANSWER 2 OF 20 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:167961 CAPLUS

DOCUMENT NUMBER: 144:227504

TITLE: Essential genes of Bacillus licheniformis and improved

biotechnological production procedures based on

genetic engineering

INVENTOR(S): Feesche, Joerg; Evers, Stefan; Bessler, Cornelius; Plath, Martina; Ehrenreich, Armin; Veith, Birgit; Liesegang, Heiko; Henne, Anke; Herzberg, Christina;

Gottschalk, Gerhard

PATENT ASSIGNEE(S): Henkel K.-G.a.A., Germany

SOURCE: Ger. Offen., 642 pp. CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1 PATENT INFORMATION:

| PAT | TENT | NO. | | | KIN | D | DATE | | | APPL | ICAT | ION | NO. | | D. | ATE | |
|-----|--------------|------|------|-----|----------|-----|--------------|-----|-----|------|-------|------|-----|------|-----|------|-----|
| | 1020 | 0404 | 0134 | | A1 | | 2006 | | | | 004- | | | 0134 | | 0040 | 819 |
| | 2006
2006 | | | | A2
A3 | | 2006
2006 | | | WO 2 | 2005- | EP86 | 83 | | 2 | 0050 | 810 |
| | W: | | | | | | | | | | BG, | | | | | | |
| | | | | | | | | | | | EC, | | | | | | |
| | | GΕ, | GH, | GM, | HR, | HU, | ID, | IL, | IN, | IS, | JP, | KE, | KG, | KM, | KΡ, | KR, | ΚZ, |
| | | LC, | LK, | LR, | LS, | LT, | LU, | LV, | MA, | MD, | MG, | MK, | MN, | MW, | MX, | MZ, | NA, |
| | | NG, | NI, | NO, | NZ, | OM, | PG, | PH, | PL, | PT, | RO, | RU, | SC, | SD, | SE, | SG, | SK, |
| | | SL, | SM, | SY, | TJ, | TM, | TN, | TR, | TT, | TZ, | UA, | UG, | US, | UZ, | VC, | VN, | YU, |
| | | ZA, | ZM, | zw | | | | | | | | | | | | | |
| | RW: | AT, | BE, | BG, | CH, | CY, | CZ, | DE, | DK, | EE, | ES, | FI, | FR, | GB, | GR, | HU, | IE, |
| | | IS, | IT, | LT, | LU, | LV, | MC, | NL, | PL, | PT, | RO, | SE, | SI, | SK, | TR, | BF, | ВJ, |
| | | CF, | CG, | CI, | CM, | GA, | GN, | GQ, | GW, | ML, | MR, | NE, | SN, | TD, | TG, | BW, | GH, |
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| | | KG, | KZ, | MD, | RU, | TJ, | TM | | | | | | | | | | |

PRIORITY APPLN. INFO.:

DE 2004-102004040134A 20040819 AB The present invention provides 150 new essential genes and their encoded proteins of Bacillus licheniformis strain DSM13. These genes encode proteins essential to viability of B. licheniformis, including replication factors (for example DNA polymerase, helicase, or gyrase), transcription factors (for example RNA polymerase), protein biosynthesis (ribosomal proteins, aminocyl-tRNA synthetases, initiation and elongation factors), secretion of proteins (for example translocases), or energy metabolism An absence of these genes is directly lethal for the cells concerned and cannot be balanced by compds. from the nutrient medium. Thus, the associated genes can be used as selection markers. Biotechnol, production fermentative procedures in microorganisms can be improved by genetic engineering involving these selection genes.

L19 ANSWER 3 OF 20 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:160981 CAPLUS DOCUMENT NUMBER: 142:256748

TITLE: Crystal structure of methionine

aminopeptidase from Staphylococcus aureus and Streptococcus pneumoniae, and use of structural data in drug discovery

INVENTOR(S): Palmer, Leslie M.; Janson, Chervl A.; Smith, Ward

Whitlock, Jr.

PATENT ASSIGNEE(S): Smithkline Beecham Corporation, USA

SOURCE: PCT Int. Appl., 347 pp. CODEN: PIXXD2

DOCUMENT TYPE: Pat.ent.

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1 PATENT INFORMATION:

KIND DATE APPLICATION NO. PATENT NO. WO 2005016237 A2 20050224 WO 2004-US14258 20040507 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, SN. TD. TG 20060215 EP 2004-775954 EP 1624849 A2 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR JP 2007525947 T 20070913 JP 2006-514318 200405507 US 20070077641 A1 20070405 US 2005-555830 20051107 RITY APPLN. INFO:: US 2004-68643P P 20030507 WO 2004-U514258 W 20040507 PRIORITY APPLN. INFO.:

Crystal structures of methionine aminopeptidases from AB Staphylococcus aureus and Streptococcus pneumoniae are disclosed. Three dimensional structure coordinates of methionine aminopeptidases from S. aureus and S. pneumoniae are disclosed. Three dimensional structure coordinates for S. aureus methionine aminopeptidase complexes with specific inhibitors, 5-(3-iodo-phenyl)-1-H-[1,2,3]triazole and 5-benzofuran-2-yl-1-H-[1,2,3]triazole, are also provided. Also disclosed are inhibitors of bacterial methionine aminopeptidases, useful in treating bacterial infections and methods of identifying inhibitors of this aminopeptidase and methods of inhibiting MetAP using inhibitors with certain structural and spatial characteristics.

L19 ANSWER 4 OF 20 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:824459 CAPLUS

DOCUMENT NUMBER: 143:189122

TITLE: Cloning and physical characterization of microbial polypeptides and their use as antimicrobial targets Edwards, Aled
Affinium Pharmaceuticals, Inc., Can.

INVENTOR(S):

PATENT ASSIGNEE(S):

U.S. Pat. Appl. Publ., 637 pp., Cont.-in-part of Appl. SOURCE:

No. PCT/CA03/00483.

CODEN: USXXCO DOCUMENT TYPE: Pat.ent.

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 16

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE

```
US 20050181464
                        A1
                                20050818
                                         US 2004-953901
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     WO 2003087146
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                                           WO 2003-CA482
                                                                   20030408
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                         A3
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                         A2
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                         A3
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PRIORITY APPLN. INFO .:
                                            US 2002-385611P
                                                              P 20020604
                                            US 2002-385747P
                                                                P 20020604
                                            US 2002-385962P
                                                                Р
                                                                  20020605
                                            US 2002-386022P
                                                                  20020605
                                            US 2002-386024P
                                                               P 20020605
                                            US 2002-386087P
                                                               P 20020605
                                            US 2002-386141P
                                                               P 20020605
                                            US 2002-386350P
                                                               P 20020605
                                            US 2002-386586P
                                                               P
                                                                  20020605
                                            US 2002-386368P
                                                               P
                                                                  20020606
                                            US 2002-386369P
                                                               P
                                                                  20020606
                                                               P 20020606
                                            US 2002-386436P
                                            US 2002-386441P
                                                                P
                                                                   20020606
                                            US 2002-386528P
                                                                Ρ
                                                                   20020606
                                            US 2002-386573P
                                                                Ρ
                                                                   20020606
                                            US 2002-386834P
                                                                Ρ
                                                                   20020606
                                                                   20020731
                                            US 2002-399839P
                                                                Ρ
                                            US 2002-399861P
                                                                Ρ
                                                                   20020731
                                            US 2002-399969P
                                                                Ρ
                                                                   20020731
                                            US 2002-399970P
                                                                P
                                                                   20020731
                                            US 2002-399983P
                                                                Р
                                                                   20020731
                                            US 2002-399984P
                                                               P
                                                                   20020731
                                                              P
                                            US 2002-399985P
                                                                   20020731
                                            US 2002-400154P
                                                              P 20020801
                                                               P
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US 2002-400230P

20020801

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US 2002-400268P P 20020801
US 2002-400363P P 20020801
US 2002-400363P P 20020801
US 2002-400374P P 20020801
US 2002-400433P P 20020801
US 2002-400433P P 20020801
US 2002-400434P P 20020801
US 2002-400434P P 20020801
US 2002-400434P P 20020801
US 2002-400436P P 20020801
US 2002-400436P P 20020801
US 2002-400463P P 20020801
US 2002-304063P P 20020801
WO 2003-CA465 AZ 20030408
WO 2003-CA463 AZ 20030408
US 2002-365813P P 20020404
US 2002-365826P P 20020404
US 2002-365831P P 20020404
US 2002-365831P P 20020404
US 2002-365831P P 20020404
 US 2002-370060P
                                         P 20020404
 US 2002-370681P
                                         P 20020408
 US 2002-370806P
                                         P 20020408
 US 2002-370852P
                                         P 20020408
 US 2002-370868P
                                         P 20020408
                                         P 20020409
 US 2002-370959P
                                          P 20020409
 US 2002-370978P
 US 2002-371008P
                                          P 20020409
 US 2002-371009P
                                         P 20020409
US 2002-371014P
US 2002-371025P
US 2002-371064P
US 2002-371065P
                                        P 20020409
P 20020409
                                        P 20020409
                                        P 20020409
 US 2002-371094P
                                         P 20020409
 US 2002-371114P
                                        P 20020409
 US 2002-371180P P 20020409
US 2002-371189P P 20020409
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AB The present invention relates to polypeptide targets for pathogenic bacteria. Reliable, high throughput methods are developed to identify, express, and purify a number of antimicrobial targets from Staphylococcus aureus, Escherichia coli, Streptococcus pneumoniae, Enterococcus faecalis, Hemophilus influenzae, and Pseudomonas aeruginosa. The nucleic acid and amino acid sequences are provided for a number of microbial genes and their encoded protein products. The invention also provides bioinformatic, biochem, and biophys, characteristics of those polypeptides, in particular characterization by mass spectrometry, NMR spectrometry, and x-ray crystallog.

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L19 ANSWER 5 OF 20 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2005:824453 CAPLUS
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143:224920

DOCUMENT NUMBER:

TITLE: Cloning and physical characterization of microbial polypeptides involved in protein synthesis and

modification and their use as antimicrobial targets INVENTOR(S): Edwards, Aled
PATENT ASSIGNEE(S): Affinium Pharmaceuticals, Inc., Can.
SOURCE: U.S. Pat. Appl. Publ., 667 pp., Cont.-in-part of Appl.

No. PCT/CA03/00481. CODEN: USXXCO

DOCUMENT TYPE: Pat.ent. LANGUAGE: English FAMILY ACC. NUM. COUNT: 16

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE

| WO 2 | 00501
00308
00308 | 3099 | | A1
A2
A3 | | 2005
2003
2008 | 1009 | | US 2
WO 2 | | | | | | 00410
0030 | |
|----------|-------------------------|------------------|-----|----------------|-----|----------------------|------------|-----|--------------|-------|------|-------|----------|------|----------------|-----|
| 1 | | E, AG, | | | | | | | | | | | | | CH, | |
| | | O, CR, | | | | | | | | | | | | | GE, | |
| | | M, HR, | | | | | | | | | | | | | LK, | |
| | | S, LT,
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| | | I, FR, | | | | | | | | | | | | | TR, | BF, |
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| | | A, EP, | ΟA | | | 0000 | | | | | | | | | | |
| | 00308
00308 | | | A2
A3 | | 2003:
2004: | | | WO 2 | 003-0 | JA46 | 4 | | 21 | 0030 | 104 |
| | | 4900
E, AG, | ΔТ | | | | | RΔ. | BB. | BG. | BR. | BY. | B7. | CA. | CH. | CN. |
| | | 0, CR, | | | | | | | | | | | | | | |
| | | M, HR, | | | IL, | IN, | IS, | JP, | KE, | KG, | KP, | KR, | KZ, | LC, | LK, | LR, |
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| 1 | | H, GM, | | | | | | | | | | | | | AZ, | |
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| | | F, BJ, | | | | | | | | | | | | | | |
| WO 2 | 00308 | | , | A2 | , | 2003 | 1023 | | WO 2 | 003- | CA48 | 1 | , | 2 | 0030 | 108 |
| WO 2 | 00308 | 7353 | | A3 | | 2004 | 0205 | | | | | | | | | |
| 1 | W: A | E, AG, | AL, | AM, | ΑT, | AU, | ΑZ, | BA, | BB, | BG, | BR, | BY, | ΒZ, | CA, | CH, | CN, |
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| | | M, HR, | | | | | | | | | | | | | | |
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| 0 | | F, BJ, | CF, | | | | | | | | | | ΝE, | | | |
| | 00308
00308 | | | A2
A3 | | 2003:
2004: | | | WO 2 | 003-0 | CA48 | 5 | 20030408 | | | |
| | | 7334
E, AG, | ΔT. | | | | | RΔ | RR | BC. | BD | RV | B7 | CA | СН | CN |
| | | 0, CR, | | | | | | | | | | | | | | |
| | | M, HR, | | | | | | | | | | | | | | |
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| | | I, FR, | | | | | | | | | | | | | SK, | |
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| | | | | | | | | | US 2 | | | | | | 0020 | |
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| | | | | | | | | | US 2 | 002- | 4252 | 00P | | P 2 | 0021 | 108 |
| | | | | | | | US 2 | | | | | | 0021 | | | |
| | | | | | | | | | US 2 | | | | | | 0021 | |
| | | | | | | | | | US 2 | | | | | | 0021;
0021; | |
| | | | | | | | | | 00 2 | 002- | 1000 | 1 J E | | L 2 | 0021 | 527 |

| US | 2002-436566P | P | 20021226 |
|----|------------------------------|----|----------|
| US | 2002-436567P | P | 20021226 |
| US | 2002-436568P | P | 20021226 |
| US | 2002-436675P | P | 20021227 |
| | | | |
| US | 2002-436708P | P | 20021227 |
| US | 2002-436734P | P | 20021227 |
| US | 2002-436804P | P | 20021227 |
| US | 2002-436834P | P | 20021227 |
| US | 2002-436842P | P | 20021227 |
| US | 2002-436861P | P | 20021227 |
| US | 2002-436885P | P | 20021227 |
| US | 2002-436889P | P | 20021227 |
| US | 2002-436893P | P | 20021227 |
| | | | |
| US | 2002-436900P | P | 20021227 |
| US | 2002-436947P | P | 20021230 |
| US | 2002-436971P | P | 20021230 |
| US | 2002-436987P | P | 20021230 |
| US | 2002-437013P | P | 20021230 |
| US | 2002-437038P | P | 20021230 |
| US | 2002-437141P | P | 20021230 |
| US | 2002-437281P | P | 20021231 |
| US | 2002-437527P | P | 20021231 |
| | | | |
| US | 2002-437620P | P | 20021231 |
| US | 2002-437638P | P | 20021231 |
| WO | 2003-CA462 | A2 | 20030402 |
| WO | 2003-CA464 | A2 | 20030404 |
| WO | 2003-CA481 | A2 | 20030408 |
| WO | 2003-CA485 | A2 | 20030408 |
| US | 2002-369511P | P | 20020402 |
| US | 2002-369817P | P | 20020404 |
| US | 2002-370102P | P | 20020404 |
| US | 2002-3701021
2002-370778P | P | 20020404 |
| | | | |
| US | 2002-370792P | P | 20020408 |
| US | 2002-370820P | P | 20020408 |
| US | 2002-370859P | P | 20020408 |
| US | 2002-370899P | P | 20020408 |
| US | 2002-370915P | P | 20020408 |
| US | 2002-371067P | P | 20020409 |
| US | 2002-371107P | P | 20020409 |
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| US | 2002-371185P | P | 20020409 |
| US | 2002-371183F
2002-385089P | P | 20020403 |
| | | | |
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| US | 2002-386826P | P | 20020606 |
| US | 2002-386869P | P | 20020606 |

AB The present invention relates to polypeptide targets for pathogenic bacteria. Reliable, high throughput methods are developed to identify, express, and purify a number of antimicrobial targets from Staphylococcus aureus, Escherichia coli, Streptococcus pneumoniae, Enterococcus facealis, Hemophilus influenzae, and Pseudomonas aeruginosa. The nucleic acid and amino acid sequences are provided several proteins. The invention also provides bioinformatic, biochem., and biophys.

characteristics of those polypeptides, in particular characterization by mass spectrometry, NMR spectrometry, and x-ray crystallog.

L19 ANSWER 6 OF 20 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:842874 CAPLUS

DOCUMENT NUMBER: 143:342576

TITLE: Phylogenetic analysis of Pasteuria penetrans by use of

multiple genetic loci

AUTHOR(S): Charles, Lauren; Carbone, Ignazio; Davies, Keith G.;

Bird, David; Burke, Mark; Kerry, Brian R.; Opperman,

Charles H.

CORPORATE SOURCE: Center for the Biology of Nematode Parasitism,

Department of Plant Pathology, North Carolina State University, Raleigh, NC, 27606, USA

SOURCE: Journal of Bacteriology (2005), 187(16), 5700-5708 CODEN: JOBAAY; ISSN: 0021-9193

PUBLISHER: American Society for Microbiology

DOCUMENT TYPE: Journal

t o

LANGUAGE: English

AB Pasteuria penetrans is a gram-pos., endospore-forming subacterium that apparently is a member of the Bacillus-Clostridium clade. It is an obligate parasite of root knot nematodes (Meloidogyne spp.) and preferentially grows on the developing ovaries, inhibiting reproduction Root knot nematodes are devastating root pests of economically important crop plants and are difficult to control. Consequently, P. penetrans has long been recognized as a potential biocontrol agent for root knot nematodes, but the fastidious life cycle and the obligate nature of parasitism have inhibited progress on mass culture and deployment. We are currently

sequencing the genome of the Pasteuria bacterium and have performed amino acid level analyses of 33 bacterial species (including P. penetrans) using concatenation of 40 housekeeping genes, with and without insertions/deletions (indels) removed, and using each gene individually.

By application of maximum-likelihood, maximum-parsimony, and Bayesian methods

the resulting data sets, P. penetrans was found to cluster tightly, with a high level of confidence, in the Bacillus class of the gram-pos., low-G+C-content eubacteria. Strikingly, our analyses identified P. penetrans as ancestral to Bacillus spp. Addnl, all analyses revealed that P. penetrans is surprisingly more closely related to the saprophytic extremophile Bacillus haladurans and Bacillus subtilis than to the pathogenic species Bacillus anthracis and Bacillus cereus. Collectively, these findings strongly imply that P. penetrans is an ancient member of the Bacillus group. We suggest that P. penetrans may have evolved from an ancient symbiotic bacterial associate of nematodes, possibly as the root knot nematode evolved to be a highly specialized parasite of plants.

nematode evolved to be a nightly specialized parasite of plants.

REFERENCE COUNT: 48 THERE ARE 48 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19 ANSWER 7 OF 20 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN ACCESSION NUMBER: 2005:499947 BIOSIS

DOCUMENT NUMBER: PREV200510266154

TITLE: Identification of potent type I MetAPs inhibitors by simple

bioisosteric replacement. Part 2: SAR studies of

5-heteroalkyl substituted TCAT derivatives.

AUTHOR(S): Cui, Yong-Mei; Huang, Qing-Qing; Xu, Jie; Chen, Ling-Ling; Li, Jing-Ya; Ye, Qi-Zhuang; Li, Jia [Reprint Author]; Nan,

Fa-Jun

CORPORATE SOURCE: Chinese Acad Sci, Shanghai Inst Biol Sci, Grad Sch, Inst

Mat Med, Chinese Natl Ctr Drug Screening, 189 Guoshoujing Rd, Zhangjiang Hi Tech Pk, Shanghai 201203, Peoples R China jii@mail.shcnc.ac.cn; fjnan@mail.shcnc.ac.cn

SOURCE: Bioorganic & Medicinal Chemistry Letters, (SEP 15 2005)

Vol. 15, No. 18, pp. 4130-4135. CODEN: BMCLE8. ISSN: 0960-894X.

DOCUMENT TYPE: Article

LANGUAGE: English

ENTRY DATE: Entered STN: 16 Nov 2005

Last Updated on STN: 16 Nov 2005

Systematic SAR studies on the thiazole ring 5-substituent of TCAT AB

derivatives revealed that the introduction of a beta-alkoxy or an amino

group enhanced the inhibitory activity significantly. The present

compounds are representative of specific Co(II)-MetAP1 inhibitors. Before the physiologically relevant metal ions for MetAPs are established, these small molecular compounds could be used as tools for detailed biological studies. (c) 2005 Elsevier Ltd. All rights reserved.

L19 ANSWER 8 OF 20 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:1070708 CAPLUS

DOCUMENT NUMBER: 143.301262

TITLE: Crystal structures of Staphylococcus aureus

methionine aminopeptidase complexed

with keto heterocycle and aminoketone inhibitors reveal the formation of a tetrahedral intermediate.

[Erratum to document cited in CA140:283330]

AUTHOR(S): Douangamath, Alice; Dale, Glenn E.; D'Arcy, Allan; Almstetter, Michael; Eckl, Robert; Frutos-Hoener, Annabelle; Henkel, Bernd; Illgen, Katrin; Nerdinger,

Sven; Schulz, Henk; Mac Sweeney, Aengus; Thormann, Michael; Treml, Andreas; Pierau, Sabine; Wadman,

Sjoerd; Oefner, Christian

CORPORATE SOURCE: Morphochem AG, Basel, CH-4058, Switz.

SOURCE: Journal of Medicinal Chemistry (2005), 48(1), 336

CODEN: JMCMAR; ISSN: 0022-2623

PUBLISHER: American Chemical Society DOCUMENT TYPE: Journal

LANGUAGE: English

AB On page 1325, the name of coauthor Aengus Mac Sweeney was misspelled.

L19 ANSWER 9 OF 20 EMBASE COPYRIGHT (c) 2008 Elsevier B.V. All rights

reserved on STN

ACCESSION NUMBER: 2005034505 EMBASE

TITLE: Erratum: Crystal structures of Staphylococcus

aureus methionine aminopeptidase

complexed with keto heterocycle and aminoketone inhibitors reveal the formation of a tetrahedral intermediate (Journal

of Medical Chemistry (2004) 47 (1325)).

Douangamath, Alice; Dale, Glenn E.; D'Arcy, Allan; AUTHOR:

Almstetter, Michael; Eckl, Robert; Frutos-Hoener, Annabelle; Henkel, Bernd; Illgen, Katrin; Nerdinger, Sven;

Schulz, Henk; Mac Sweeney, Aengus; Thormann, Michael; Treml, Andreas; Pierau, Sabine; Wadman, Sjoerd; Oefner,

Christian

Journal of Medicinal Chemistry, (13 Jan 2005) Vol. 48, No. SOURCE:

1, pp. 336.

ISSN: 0022-2623 CODEN: JMCMAR

COUNTRY: United States Journal; Errata; (Erratum) DOCUMENT TYPE:

FILE SEGMENT: 030

Clinical and Experimental Pharmacology

LANGUAGE: English

ENTRY DATE: Entered STN: 4 Feb 2005

Last Updated on STN: 4 Feb 2005

L19 ANSWER 10 OF 20 CAPLUS COPYRIGHT 2008 ACS on STN DUPLICATE 1

ACCESSION NUMBER: 2004:102827 CAPLUS DOCUMENT NUMBER: 140:283330

Crystal structures of Staphylococcus aureus TITLE:

methionine aminopeptidase complexed

with keto heterocycle and aminoketone inhibitors reveal the formation of a tetrahedral intermediate Douangamath, Alice; Dale, Glenn E.; D'Arcy, Allan; Almstetter, Michael; Eckl, Robert; Frutos-Hoener,

Annabelle; Henkel, Bernd; Illgen, Katrin; Nerdinger, Sven; Schulz, Henk; MacSweenev, Aengus; Thormann,

Michael: Treml, Andreas: Pierau, Sabine: Wadman,

Sjoerd; Oefner, Christian

CORPORATE SOURCE: Morphochem AG, Basel, CH-4058, Switz.

SOURCE: Journal of Medicinal Chemistry (2004), 47(6),

1325-1328 CODEN: JMCMAR; ISSN: 0022-2623

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

High-resolution crystal structures of Staphylococcus aureus methionine aminopeptidase I in complex with various keto

heterocycles and aminoketones were determined, and the intermol. liquid interactions with the enzyme are reported. The compds. are effective

inhibitors of the S. aureus enzyme because of the formation of an uncleavable tetrahedral intermediate upon binding. The electron densities unequivocally show the enzyme-catalyzed transition-state analog mimicking

that for amide bond hydrolysis of substrates. REFERENCE COUNT: 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19 ANSWER 11 OF 20 EMBASE COPYRIGHT (c) 2008 Elsevier B.V. All rights

reserved on STN

AUTHOR(S):

ACCESSION NUMBER: 2005058980 EMBASE

TITLE: Advances in the study of methionine

aminopeptidases.

AUTHOR: Luo, Qun-Li; Li, Jing-Ya; Ye, Qi-Zhuang

SOURCE: Chinese Pharmaceutical Journal, (Nov 2004) Vol. 39, No. 11, pp. 804-808.

Refs: 31

ISSN: 1001-2494 CODEN: ZYZAEU

COUNTRY: China

DOCUMENT TYPE: Journal; Article

FILE SEGMENT: 030 Clinical and Experimental Pharmacology

> 037 Drug Literature Index

LANGUAGE: Chinese

SUMMARY LANGUAGE: Chinese ENTRY DATE: Entered STN: 18 Feb 2005

Last Updated on STN: 18 Feb 2005

L19 ANSWER 12 OF 20 CAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 2003:972222 CAPLUS

140:37977

DOCUMENT NUMBER: TITLE: Cloning and physical characterization of microbial

polypeptides involved in protein synthesis and modification and their use as antimicrobial targets Edwards, Aled; Dharamsi, Akil; Vedadi, Masoud; Vallee,

INVENTOR(S): Francois; Awrey, Donald; Beattie, Bryan; Richards, Dawn; Domagala, Megan; Mansoury, Kamran; Virag, Cristina; Buzadzija, Kristina; McDonald, Merry-Lynn;

Houston, Simon; Arrowsmith, Cheryl; Ouyang, Hui PATENT ASSIGNEE(S): Affinium Pharmaceuticals, Inc., Can.

SOURCE:

PCT Int. Appl., 606 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English LANGUAGE: Eng
FAMILY ACC. NUM. COUNT: 16
PATENT INFORMATION:

| PATENT INFORMATION: | | | | | | |
|---|-----------------|---|--------------------------|--|--|--|
| PATENT NO. | KIND DATE | | DATE | | | |
| WO 2003102190
WO 2003102190 | A2 20031211 | WO 2003-CA786 | 20030602 | | | |
| | | BA, BB, BG, BR, BY, | BZ, CA, CH, CN, | | | |
| | | DZ, EC, EE, ES, FI, | | | | |
| | | JP, KE, KG, KP, KR, | | | | |
| | | MK, MN, MW, MX, MZ, SE, SG, SK, SL, TJ, | | | | |
| | US, UZ, VC, VN, | | 1P1, 1N, 1N, 11, | | | |
| | | SL, SZ, TZ, UG, ZM, | ZW, AM, AZ, BY, | | | |
| KG, KZ, MD, | RU, TJ, TM, AT, | BE, BG, CH, CY, CZ, | DE, DK, EE, ES, | | | |
| | | LU, MC, NL, PT, RO, | | | | |
| | | GN, GQ, GW, ML, MR, | | | | |
| AU 2003229205
PRIORITY APPLN. INFO.: | A1 20031219 | AU 2003-229205
US 2002-384634P | 20030602
P 20020531 | | | |
| FRIORITI AFFEN. INFO.: | | US 2002-385157P | P 20020531 | | | |
| | | US 2002-385542P | P 20020604 | | | |
| | | US 2002-385611P | P 20020604 | | | |
| | | US 2002-385747P | P 20020604 | | | |
| | | US 2002-385750P | P 20020604 | | | |
| | | US 2002-385752P
US 2002-385773P | P 20020604
P 20020604 | | | |
| | | US 2002-385780P | P 20020604 | | | |
| | | US 2002-385785P | P 20020604 | | | |
| | | US 2002-385797P | P 20020604 | | | |
| | | US 2002-385962P | P 20020605 | | | |
| | | US 2002-386022P
US 2002-386024P | P 20020605
P 20020605 | | | |
| | | US 2002-386087P | P 20020605 | | | |
| | | US 2002-386141P | P 20020605 | | | |
| | | US 2002-386350P | P 20020605 | | | |
| | | US 2002-386586P | P 20020605 | | | |
| | | US 2002-386368P
US 2002-386369P | P 20020606
P 20020606 | | | |
| | | US 2002-386436P | P 20020606 | | | |
| | | US 2002-386441P | P 20020606 | | | |
| | | US 2002-386528P | P 20020606 | | | |
| | | US 2002-386573P | P 20020606 | | | |
| | | US 2002-386834P
US 2002-399839P | P 20020606
P 20020731 | | | |
| | | US 2002-399839P
US 2002-399861P | P 20020731
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| | | US 2002-399969P | P 20020731 | | | |
| | | US 2002-399970P | P 20020731 | | | |
| | | US 2002-399983P | P 20020731 | | | |
| | | US 2002-399984P | P 20020731 | | | |
| | | US 2002-399985P
US 2002-400268P | P 20020731
P 20020801 | | | |
| | | US 2002-400363P | P 20020801 | | | |
| | | US 2002-400436P | P 20020801 | | | |
| | | US 2002-400154P | P 20020801 | | | |
| | | US 2002-400230P | P 20020801 | | | |
| | | US 2002-400365P | P 20020801 | | | |
| | | US 2002-400374P
US 2002-400380P | P 20020801
P 20020801 | | | |
| | | US 2002-400433P | P 20020801 | | | |
| | | US 2002-400434P | P 20020801 | | | |
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US 2002-400442P P 20020801 US 2002-400463P P 20020801 WO 2003-CA786 W 20030602

AB The present invention relates to polypeptide targets for pathogenic bacteria. Reliable, high throughput methods are developed to identify, express, and purify a number of antimicrobial targets from Staphylococcus aureus, Escherichia coli, Streptococcus pneumoniae, Enterococcus faecalis, Helicobacter pylori, and Pseudomonas aeruginosa. The invention also provides bioinformatic, biochem. and biophys. characteristics of those polypeptides, in particular characterization by mass spectrometry, NMR spectrometry, and x-ray crystallog.

L19 ANSWER 13 OF 20 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2003:796890 CAPLUS

DOCUMENT NUMBER: 139:319340

TITLE: Cloning and physical characterization of microbial polypeptides involved in protein synthesis and modification and their use as antimicrobial targets

INVENTOR(S): Edwards, Aled; Dharamsi, Akil; Vedadi, Masoud; Alam, Muhammad Zahoor; Arrowsmith, Cheryl; Awrey, Donald; Beattie, Bryan; Richards, Dawn; Canadien, Veronica; Domagala, Megan; Houston, Simon; Mansourv, Kamran; Li, Qin; Nethery, Kathleen; Virag, Cristina; Ng, Ivy;

Ouyang, Hui; Tai, Matthew; Thalakada, Rosanne;

Kanagarajah, Dhushy PATENT ASSIGNEE(S):

Affinium Pharmaceuticals, Inc., Can.; et al. PCT Int. Appl., 369 pp. SOURCE:

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 16 PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE WO 2003083099 A2 20031009 WO 2003-CA462 20030402 WO 2003083099 A3 20080103 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT,

TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GO, GW, ML, MR, NE, SN, TD, TG, AP,

EA, EP, OA AU 2003213933 A1 20031013 AU 2003-213933 20030402 US 20050181388 A1 20050818 PRIORITY APPLN. INFO.:

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US 2002-436834P P 20021227
US 2002-436861P P 20021227
US 2002-437281P
                 P 20021231
US 2002-437527P
                 P 20021231
US 2002-400348P
                 P 20020801
US 2002-424380P
                 P 20021106
US 2002-424395P
                 P 20021106
US 2002-425086P
                 P 20021108
US 2002-425200P
                 P 20021108
US 2002-436243P
                 P 20021224
US 2002-436288P
                 P 20021224
US 2002-436345P
                 P 20021224
US 2002-436349P
                 P 20021224
US 2002-436566P
                 P 20021226
US 2002-436567P
                 P 20021226
US 2002-436568P
                 P 20021226
US 2002-436675P
                 P 20021227
US 2002-436708P
                 P 20021227
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                  P 20021227
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                  P 20021227
US 2002-436885P
                  P 20021227
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                  P 20021227
US 2002-436893P
                  P 20021227
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US 2002-437013P
                  P
US 2002-437038P
                 P
                     20021230
                 P 20021230
US 2002-437141P
US 2002-437620P
                 P 20021231
US 2002-437638P
                 P 20021231
WO 2003-CA462
                 W 20030402
WO 2003-CA464
                 A2 20030404
WO 2003-CA481
                  A2 20030408
WO 2003-CA485
                  A2 20030408
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AB The present invention relates to polypeptide targets for pathogenic bacteria. Reliable, high throughput methods are developed to identify, express, and purify a number of antimicrobial targets from Staphylococcus aureus, Escherichia coli, Streptococcus pneumoniae, Enterococcus faecalis, Haemophilus influenzae, and Pseudomonas aeruginosa. The nucleic acid and amino acid sequences are provided for O-sialoglycoprotein endopeptidase, glycyl-tRNA synthetase a-subunit, translation elongation factor G, methionine aminopeptidase, phenylalanyl-tRNA synthetase a-subunit, peptide chain release factor RF-2, tRNA (quanine-7-)methyltransferase, and histidyl-tRNA synthetase. The invention also provides bioinformatic, biochem, and biophys, characteristics of those polypeptides, in particular

characterization by mass spectrometry, NMR spectrometry, and x-ray L19 ANSWER 14 OF 20 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on

ACCESSION NUMBER: DOCUMENT NUMBER:

crystallog.

2004:40725 BIOSIS PREV200400041326

TITLE:

Identification of potent inhibitors of the

Staphylococcus aureus methionine

aminopeptidase.

AUTHOR(S): Wadman, S. N. [Reprint Author]; Almstetter, M.; Bohrer, Y. [Reprint Author]; Dale, G. [Reprint Author]; Douangamath,

A. [Reprint Author]; D'Arcy, A. [Reprint Author]; Frutos-Hoener, A. [Reprint Author]; Gardiner, R. [Reprint

Author]; Haefeli, S. [Reprint Author]; Henkel, B.; Illgen, K.; Locher, H. [Reprint Author]; Mareque, D. [Reprint Author]; Nerdinger, S.; Oefner, C. [Reprint Author]; Padilla, J. [Reprint Author]; Pierau, S. [Reprint Author]; Schulz, H. [Reprint Author]; Thormann, M.; Treml, A.

CORPORATE SOURCE: Morphochem AG, Basel, Switzerland

Abstracts of the Interscience Conference on Antimicrobial SOURCE:

> Agents and Chemotherapy, (2003) Vol. 43, pp. 217. print. Meeting Info.: 43rd Annual Interscience Conference on Antimicrobial Agents and Chemotherapy, Chicago, IL, USA. September 14-17, 2003. American Society for Microbiology.

DOCUMENT TYPE: Conference; (Meeting)

Conference; Abstract; (Meeting Abstract)

LANGUAGE:

English ENTRY DATE: Entered STN: 14 Jan 2004

Last Updated on STN: 14 Jan 2004

Background: Methionine aminopeptidases (MetAps) remove

the terminal methionines from many newly synthesized polypeptides as part of protein maturation and are deemed essential for normal cell function in most living organisms. Selective inhibitors of bacterial MetAps would represent a novel class of antibacterial agents to address the growing need for novel treatments of infections by increasingly common multi-drug resistant bacterial strains. Methods: Our approach was aimed to generate multiple, structurally diverse series of inhibitors of S. aureus MetAp, based upon insights gained from X-ray crystallography of enzyme-inhibitor complexes. We verified the binding mode of several inhibitors classes and used this information into the design of new inhibitors. Results: Molmind TM Technology, structure-based design and parallel chemistry techniques allowed identification of four distinct inhibitor classes of S. aureus MetAp and their binding modes were verified by X-ray crystallography. In one series, based on a central triazole motif, low nanomolar inhibitors were rapidly identified but surprisingly these were completely inactive in antibacterial assays. In other series, modest antibacterial activity was identified and correlated with enzyme affinity. Conclusions: The lack of correlation between enzyme affinity and antibacterial activity for our most active series of inhibitors may be due to a number of variables, but suggests a discrepancy between the in vitro and in vivo enzyme states. The behavior of antagonists depends critically on the nature of the catalytic metal center of the enzyme and we surmise that the assay conditions do not accurately mirror the in vivo state of the enzyme.

L19 ANSWER 15 OF 20 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:444428 CAPLUS

DOCUMENT NUMBER: 137:30494

TITLE: Staphylococcus aureus genes and gene

products and their use in the prophylaxis, diagnosis,

and treatment of infection Bailey, Camella; Choi, Gil H.

INVENTOR(S): PATENT ASSIGNEE(S): Human Genome Sciences, Inc., USA

SOURCE: U.S., 123 pp., Cont.-in-part of Appl. No. PCT/US99/19726.

CODEN: USXXAM DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 7

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----------------|------|----------|-----------------|----------|
| | | | | |
| US 6403337 | B1 | 20020611 | US 2000-512255 | 20000224 |
| US 20030054436 | A1 | 20030320 | US 1997-781986 | 19970103 |
| US 6737248 | B2 | 20040518 | | |

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US 6593114
                       B1 20030715 US 1997-956171
                                                                19971020
    WO 2000012678
                       A2 20000309 WO 1999-US19726
                                                                19990831
    WO 2000012678
                        A3
                            20000615
        W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,
            DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
            KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW,
            MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR,
            TT, UA, UG, US, UZ, VN, YU, ZA, ZW
        RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK,
            ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG,
            CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
    US 20030186364
                     A1
                             20031002
                                         US 2002-138701
    US 6753149
                        B2 20040622
    JP 2004135679
                       A 20040513
A1 20041230
                                         JP 2003-431638
                                                                20031225
    US 20040265962
                                         US 2004-823785
                                                                20040414
PRIORITY APPLN. INFO.:
                                          US 1996-9861P
                                                            P 19960105
                                                            A2 19970105
                                          US 1997-781986
                                          US 1997-956171
                                                             A2 19971020
                                                            P 19980901
                                          US 1998-98964P
                                          WO 1999-US19726
                                                            A2 19990831
                                          JP 1997-20160
                                                             A3 19970106
                                          US 2000-512255
                                                             A3 20000224
                                          US 2002-138701
                                                             A3 20020506
    The present invention relates to novel genes from S. aureus and the
    polypeptides they encode. Also provided as are vectors, host cells,
    antibodies and recombinant methods for producing the same. The invention
    further relates to screening methods for identifying agonists and
    antagonists of S. aureus polypeptide activity. The invention addnl.
    relates to diagnostic methods for detecting Staphylococcus
    nucleic acids, polypeptides and antibodies in a biol. sample. The present
    invention further relates to novel vaccines for the prevention or
    attenuation of infection by Staphylococcus.
REFERENCE COUNT:
                             THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS
                        8
                             RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
L19 ANSWER 16 OF 20 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER:
                       2002:937303 CAPLUS
DOCUMENT NUMBER:
                        138:20443
TITLE:
                       Endocrine disruptor screening using DNA chips of
                       endocrine disruptor-responsive genes
INVENTOR(S):
                       Kondo, Akihiro; Takeda, Takeshi; Mizutani, Shigetoshi;
```

Tsujimoto, Yoshimasa; Takashima, Rvokichi; Enoki,

Yuki; Kato, Ikunoshin

Takara Bio Inc., Japan

Jpn. Kokai Tokkyo Koho, 386 pp. SOURCE:

CODEN: JKXXAF DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT ASSIGNEE(S):

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE | | |
|---|------|----------|------------------|----------------------------------|--|--|
| | | | | | | |
| JP 2002355079
PRIORITY APPLN. INFO.: | A | 20021210 | JP 2001-73183 A | 20020313
20010314
20010315 | | |
| | | | JP 2001-102519 A | 20010330 | | |

AB A method and kit for detecting endocrine-disrupting chems. using DNA microarrays are claimed. The method comprises preparing a nucleic acid sample containing mRNAs or cDNAs originating in cells, tissues, or organisms which have been brought into contact with a sample containing the endocrine disruptor. The nucleic acid sample is hybridized with DNA microarrays

having genes affected by the endocrine disruptor or DNA fragments originating in these genes have been fixed. The results obtained are then compared with the results obtained with the control sample to select the gene affected by the endocrine disruptor. Genes whose expression is altered by tri-Bu tin, 4-octaphenol, 4-nonylphenol, di-N-Bu phthalate, dichlorohexyl phthalate, octachlorostyrene, benzophenone, diethylhexyl phthalate, diethylstilbestrol (DES), and 17-β estradiol (E2), were found in mice by DNA chip anal.

L19 ANSWER 17 OF 20 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on SIN

ACCESSION NUMBER: 2003:66112 BIOSIS PREV200300066112

DOCUMENT NUMBER: TITLE: Peptide deformylase inhibitors, potential for a new class

of broad spectrum antibacterials.

Clements, John M. [Reprint Author]; Ayscough, Andrew P.; AUTHOR(S):

Keavey, Kenneth; East, Stephen P. CORPORATE SOURCE: British Biotech Pharmaceuticals Ltd., Watlington Road,

Oxford, OX4 6LY, UK clements@britbio.co.uk

SOURCE: Current Medicinal Chemistry - Anti-Infective Agents, (July

2002) Vol. 1, No. 3, pp. 239-249, print.

ISSN: 1568-0126 (ISSN print). Article

DOCUMENT TYPE:

General Review; (Literature Review)

LANGUAGE: English

ENTRY DATE: Entered STN: 29 Jan 2003

Last Updated on STN: 29 Jan 2003

L19 ANSWER 18 OF 20 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2001:115186 CAPLUS

DOCUMENT NUMBER: 134:158506

TITLE: Protein and DNA sequences of a novel

Staphylococcus aureus map protein and the uses thereof in diagnosis, therapy and drug screening INVENTOR(S): Palmer, Leslie M.; Traini, Christopher M.; Burnham,

Martin K. R.; Ward, Judith M.

PATENT ASSIGNEE(S): Smithkline Beecham Corporation, USA; Smithkline

Beecham PLC

SOURCE: PCT Int. Appl., 42 pp.

CODEN: PIXXD2 DOCUMENT TYPE: Patent

LANGUAGE: English FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO.
WO 2001010904 | KIND

A1 | DATE

20010215 | APPLICATION NO.
WO 2000-US21165 | | DATE

20000803 | | | |
|------------------------------------|----------------|----------------------|------------------------------------|--------|----------------------|--|--|--|
| W: JP
RW: AT, BE, CH,
PT, SE | CY, DE | , DK, ES, | FI, FR, GB, GR, IE, I | T, LU, | MC, NL, | | | |
| JP 2003510025 | T | 20030318 | JP 2001-515711 | 2 | 0000803 | | | |
| US 20030235842 | A1 | 20031225 | US 2003-374606 | | 0030226 | | | |
| US 20060223082 | A1 | 20061005 | US 2005-271616 | 2 | 0051110 | | | |
| PRIORITY APPLN. INFO.: | | | US 1999-370397 | A 1 | 9990806 | | | |
| | | | WO 2000-US21165 | W 2 | 0000803 | | | |
| | | | US 2001-4292 | B1 2 | 0011029 | | | |
| | | | US 2003-374606 | B1 2 | 0030226 | | | |

The invention provides protein and DNA sequences of a novel AR Staphylococcus aureus map protein and methods for producing the map by recombinant techniques. Staphylococcus map protein is

related by amino acid sequence homol. to map protein, which is believed to be a member of the methionine aminopeptidase family.

Also provided are methods for utilizing map in drug screening for

antibacterial compds. The invention further relates to the uses of map in diagnosis and treatment of disorders associated with microbial infections.

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19 ANSWER 19 OF 20 CAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 2000:161422 CAPLUS

DOCUMENT NUMBER: 132:204092

TITLE: Staphylococcus aureus gene and polypeptide

sequences and their use as vaccines

INVENTOR(S): Bailey, Camella C.; Choi, Gil H.
PATENT ASSIGNEE(S): Human Genome Sciences, Inc., USA

SOURCE: PCT Int. Appl., 144 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English FAMILY ACC. NUM. COUNT: 7

PATENT INFORMATION:

| | PATENT NO. | | | | | | | | | | | | | | | | | | |
|-------|------------|--------|------|------|-----|-----|----------------------------|------|----------------------------------|----------------------------------|----|-------|------|----------|-----|----------|----------|-----|--|
| | WO | 2000 | 0126 | 78 | | A2 | A2 20000309
A3 20000615 | | | | | 1999- | | | | | | | |
| | WO | | | | | | | | | | | | - | 011 | | 011 | 0.7 | | |
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| | | RW: | | | | | | | | | | , ZW, | | | | | | | |
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AU 1999-61319 | | | | | | | 19990831 | | | |
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| | | | IE, | SI, | LT, | LV, | FI, | RO | | | | | | | | | | | |
| | JΡ | 2002 | 5250 | 83 | | T | | 2002 | 0813 | JP 2000-571068
US 2000-512255 | | | | | | | 19990831 | | |
| | US | 6403 | 337 | | | B1 | | 2002 | 0611 | | US | 2000- | 5122 | 55 | | 20000224 | | | |
| | US | 2003 | 0186 | 364 | | A1 | | 2003 | 1002 | | US | 2002- | 1387 | 01 | | 2 | 20020 | 506 | |
| | US | 6753 | 149 | | | B2 | | 2004 | 0622 | | | | | | | | | | |
| | US | 2004 | 0265 | 962 | | A1 | | 2004 | 1230 | | US | 2004- | 8237 | 85 | | 2 | 20040 | 414 | |
| PRIOR | RIT | Y APP: | LN. | INFO | . : | | | | | | US | 1998- | 9896 | 4P | | P 1 | L9980 | 901 | |
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AB The present invention relates to novel genes from Staphylococcus aureus strain ISP3 and the polypeptides they encode. Also provided are vectors, host cells, antibodies, and recombinant methods for producing the same. The invention further relates to screening methods for identifying agonists and antagonists of S. aureus polypeptide activity. The invention addnl. relates to diagnostic methods for detecting Staphylococcus nucleic acids, polypeptides, and antibodies in a biol. sample. The present invention further relates to novel vaccines for the prevention or attenuation of infection by Staphylococcus.

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ACCESSION NUMBER:
                        2000:156175 CAPLUS
DOCUMENT NUMBER:
                        133:115743
TITLE:
                         Identification of the up- and down-regulated genes in
                        vancomycin-resistant Staphylococcus aureus
                        strains Mu3 and Mu50 by cDNA differential
                        hybridization method
                        Kuroda, Makoto; Kuwahara-Arai, Kyoko; Hiramatsu,
AUTHOR(S):
                        Keiichi
CORPORATE SOURCE:
                        Department of Bacteriology, Faculty of Medicine,
                        Juntendo University, Bunkvo-ku, Tokyo, 113-8421, Japan
SOURCE:
                        Biochemical and Biophysical Research Communications
                        (2000), 269(2), 485-490
                        CODEN: BBRCA9; ISSN: 0006-291X
PUBLISHER:
                        Academic Press
DOCUMENT TYPE:
                        Journal
LANGUAGE:
                        English
   We previously reported the first vancomycin-resistant
     Staphylococcus aureus (VRSA) clin. strain, Mu50, whose cell wall
     is remarkably thickened resulting from the activation of cell-wall
     synthesis. To explore the genetic basis for the vancomycin resistance,
     cDNA differential hybridization was performed using RNAs extracted from a set
     of closely related S. aureus strains with various levels of vancomycin
     susceptibilities. The strains were Mu3 (MIC = 2 µg/mL), Mu50 (MIC = 8
     ug/mL), and a susceptible revertant of Mu50, Mu50m (MIC = 0.5
     μq/mL). In this study, we report identification of a novel response
     regulator, designated vraR (standing for vancomycin-resistance associated
     gene R) whose transcription was remarkably up-regulated in Mu3 and Mu50 as
     compared to Mu50m. Exptl. over-expression of VraR in
    vancomycin-susceptible strain N315P raised vancomycin resistance of the
    strain. Also, the genes coding for fructose utilization, fatty acid
     metabolism, and two putative ATP-binding cassette (ABC) transporter genes were
     found to be up-regulated in Mu3 and Mu50. On the other hand, Protein A
     expression was suppressed in Mu50, as compared with Mu3 and Mu50ω.
     We consider that the response regulator vraR is one of the key regulators
     modulating the level of vancomycin-resistance in S. aureus. Presumed
     increased uptake of fructose and altered fatty acid metabolism may also
     contribute to vancomycin resistance by supplying more precursor
     metabolites for cell-wall synthesis. (c) 2000 Academic Press.
REFERENCE COUNT:
                         22
                              THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS
                               RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
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     (FILE 'HOME' ENTERED AT 09:06:39 ON 10 JUL 2008)
     FILE 'REGISTRY' ENTERED AT 09:06:56 ON 10 JUL 2008
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             8 S L5 AND THIOPHEN?
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           393 S L7 AND ANILINO
L8
L9
            57 S L8 AND THIOPHEN?
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FILE 'CAPLUS, MEDLINE, BIOSIS, EMBASE' ENTERED AT 09:30:12 ON 10 JUL 2008 L10 2 S L9 L11 97 S L5 L12 1 S L11 AND BACTER? FILE 'REGISTRY' ENTERED AT 09:34:33 ON 10 JUL 2008

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FILE 'CAPLUS, MEDLINE, BIOSIS, EMBASE' ENTERED AT 09:37:26 ON 10 JUL 2008

L17 1363 S METHIONINE (W) AMINOPEPTID?

L18 23 S L17 AND STAPHYLOC?

L19 20 DUP REM L18 (3 DUPLICATES REMOVED)

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NEWS 15 MAR 31 CAS REGISTRY enhanced with additional experimental spectra

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NEWS 16 MAR 31 CA/CAplus and CASREACT patent number format for U.S.
                 applications updated
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NEWS 18 MAR 31 EMBASE, EMBAL, and LEMBASE reloaded with enhancements
NEWS 19 APR 04 STN AnaVist, Version 1, to be discontinued
NEWS 20 APR 15 WPIDS, WPINDEX, and WPIX enhanced with new
                 predefined hit display formats
NEWS 21 APR 28 EMBASE Controlled Term thesaurus enhanced
NEWS 22 APR 28 IMSRESEARCH reloaded with enhancements
NEWS 23 MAY 30 INPAFAMDB now available on STN for patent family
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                 sequence search option
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                 patent numbers for U.S. applications
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             AND CURRENT DISCOVER FILE IS DATED 23 JUNE 2008.
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L3 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:277764 CAPLUS

DOCUMENT NUMBER: 137:2289

TITLE: Microsporidian methionine aminopeptidase type 2

AUTHOR(S): Weiss, Louis M.; Costa, Sylvia F.; Zhang, Hong

CORPORATE SOURCE: Department of Pathology, Albert Einstein College of

Medicine, Bronx, NY, 10461, USA

SOURCE: Journal of Eukaryotic Microbiology (2001),

(Suppl.), 88S-90S

CODEN: JEMIED: ISSN: 1066-5234 PUBLISHER: Society of Protozoologists

DOCUMENT TYPE: Journal

LANGUAGE: English

The cellular target(s) for fumagillin and its analogs in microsporidia is

unknown, but it is probable that the antimicrosporidial activity of

fumagillin and its derivs. is due to inhibition of a methionine

aminopeptidase type 2 (MetAP2) homolog and that MetAP2

is an essential enzyme for these organisms. The authors have been able to demonstrate that microsporidian spore lysates have methionine

aminopeptidase activity and by using homol. PCR have isolated a

MetAP2 gene from Encephalitozoon hellem.

REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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L7 ANSWER 1 OF 10 MEDLINE on STN ACCESSION NUMBER: 2001439776 MEDLIN

DOCUMENT NUMBER: PubMed ID: 11485930
TITLE: Methionine aminopeptidase-2 regulates human mesothelioma

cell survival: role of Bcl-2 expression and telomerase activity.

AUTHOR: Catalano A; Romano M; Robuffo I; Strizzi L; Procopio A CORPORATE SOURCE: Department of Experimental Pathology, University of Ancona,

Ancona, Italy.

SOURCE: The American journal of pathology, (2001 Aug)

Vol. 159, No. 2, pp. 721-31. Journal code: 0370502. ISSN: 0002-9440.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

(RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English

FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals ENTRY MONTH: 200109

ENTRY DATE: Entered STN: 10 Sep 2001

Last Updated on STN: 10 Sep 2001 Entered Medline: 6 Sep 2001

AB Methionine aminopeptidase-2 (MetAP2) is the molecular target of the angiogenesis inhibitors, fumagillin and ovalacin. Fumagillin can also inhibit cancer cell proliferation, implying that MetAP2 may play a quite complex role in tumor progression. Here, we examined the expression and function of MetAP2 in an in vitro model of human mesothelioma. We found that mesothelioma cells expressed higher MetAP2 mRNA levels than primary normal mesothelial cells. Consistently, fumagillin induced apoptosis, owing to early mitochondrial damage, in malignant, but not in normal mesothelial cells. Transfection of mesothelioma cells with a MetAP2 anti-sense oligonucleotide determined a time-dependent inhibition of cell survival and induced nucleosome formation. Interestingly, mRNA and protein levels of the anti-apoptotic gene bcl-2 as well as telomerase activity were selectively reduced after MetAP2 inhibition in mesothelioma cells, whereas bcl-2 overexpression counteracted the effect of MetAP2 inhibition on telomerase activity and apoptosis. MetAP2 inhibition also increased caspase activity and the caspase inhibitor, zVAD-fmk, prevented fumagillin-induced apoptosis, but it did not alter telomerase

activity. These results indicate that MetAP2 is a main regulator of proliferative and apoptotic pathways in mesothelioma cells and suggest that MetAP2 inhibition may represent a potential target for therapeutic intervention in human mesothelioma.

ANSWER 2 OF 10 MEDLINE on STN ACCESSION NUMBER: 2001056253 MEDLINE DOCUMENT NUMBER: PubMed ID: 11079802

TITLE: cis-fumagillin, a new methionine aminopeptidase

(type 2) inhibitor produced by Penicillium sp. F2757.

AUTHOR: Kwon J Y; Jeong H W; Kim H K; Kang K H; Chang Y H; Bae K S;

Choi J D; Lee U C; Son K H; Kwon B M

CORPORATE SOURCE: Korea Research Institute of Bioscience and Biotechnology, Yusong, Taejon, Republic of Korea.

SOURCE:

The Journal of antibiotics, (2000 Aug) Vol. 53, No. 8, pp. 799-806.

Journal code: 0151115. ISSN: 0021-8820.

PUB. COUNTRY: Japan

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, NON-U.S. GOV'T)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200012

ENTRY DATE: Entered STN: 22 Mar 2001 Last Updated on STN: 22 Mar 2001

Entered Medline: 15 Dec 2000

Selective inhibition against the yeast MetAP2 (methionine aminopeptidase type 2) was detected in the fermentation broth of a fungus

F2757 that was later identified as Penicillium janczewskii. A new compound cis-fumagillin methyl ester (1) was isolated from the diazomethane treated fermentation extracts together with the known

compound fumagillin methyl ester (2). The cis-

fumagillin methyl ester, a stereoisomer of fumagillin

methyl ester at the C2'-C3' position of the aliphatic side chain, selectively inhibited growth of the map1 mutant yeast strain (MetAP1 deletion strain) at a concentration as low as 1 ng. However, the wild type yeast w303 and the mutant map2 (MetAP2 deleted) strains

were resistant up to 10 microg of the compound. In enzyme experiments, compound 1 inhibited the MetAP2 with an IC50 value of 6.3 nM, but it did not inhibit the MetAP1 (IC50 >200 microM). Compound 2 also inhibited the MetAP2 with an IC50 value of 9.2 nM and 105 microM

L7 ANSWER 3 OF 10 MEDLINE on STN

against MetAP1.

ACCESSION NUMBER: 2000300917 MEDLINE DOCUMENT NUMBER: PubMed ID: 10841547

TITLE: Cell cycle inhibition by the anti-angiogenic agent TNP-470

is mediated by p53 and p21WAF1/CIP1.

AUTHOR: Zhang Y; Griffith E C; Sage J; Jacks T; Liu J O CORPORATE SOURCE:

Center for Cancer Research, and Departments of Biology and

Chemistry, and Howard Hughes Medical Institute, Massachusetts Institute of Technology, Cambridge, MA 02139,

SOURCE: Proceedings of the National Academy of Sciences of the

United States of America, (2000 Jun 6) Vol. 97,

No. 12, pp. 6427-32.

Journal code: 7505876. ISSN: 0027-8424.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, NON-U.S. GOV'T)

(RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)

English

LANGUAGE:

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200007

ENTRY DATE: Entered STN: 20 Jul 2000

Last Updated on STN: 20 Jul 2000

Entered Medline: 13 Jul 2000

AB Angiogenesis has been demonstrated to be essential for tumor growth and metastasis, and inhibition of angiogenesis is emerging as a promising strategy for treating cancer. Among the most potent inhibitors of angiogenesis is the fumagillin family of natural products. An analog of fumagillin, known as TNP-470 or AGM-1470, has been undergoing clinical trials for treating a variety of cancers. TNP-470 has been shown to block endothelial cell cycle progression in the late G(1) phase. Although the direct molecular target for TNP-470 has been identified as the type 2 methionine aminopeptidase (MetAP2), how inhibition of this enzyme leads to cell cycle arrest has remained unclear. We report that treatment of endothelial and other drug-sensitive cell types leads to the activation of the p53 pathway, causing an accumulation of the G(1) cyclin-dependent kinase inhibitor p21(WAF1/CIP1). The requirement of p53 and p21(WAF1/CIP1) for the cell cycle inhibition by TNP-470 is underscored by the observation that cells deficient in p53 and p21(WAF1/CIP1) are resistant to TNP-470. These results shed significant light on the mechanism of cell cycle inhibition by TNP-470 and suggest an alternative method of activating p53 in endothelial cells to halt angiogenesis and tumor progression.

ANSWER 4 OF 10 MEDLINE on STN ACCESSION NUMBER: 2000225886

MEDITNE DOCUMENT NUMBER: PubMed ID: 10760954

TITLE: Selective inhibition of endothelial cell proliferation by

fumagillin is not due to differential expression of

methionine aminopeptidases.

Wang J; Lou P; Henkin J AUTHOR:

CORPORATE SOURCE: Cancer Research, Pharmaceutical Product Division, Abbott

Laboratories Abbott Park, Illinois 60064, USA..

iievi.wang@abbott.com Journal of cellular biochemistry, (2000 Apr) Vol.

77, No. 3, pp. 465-73.

Journal code: 8205768. ISSN: 0730-2312.

PUB. COUNTRY: United States DOCUMENT TYPE: (COMPARATIVE STUDY)

Journal; Article; (JOURNAL ARTICLE) LANGUAGE: English

FILE SEGMENT:

SOURCE:

Priority Journals

ENTRY MONTH: 200006

ENTRY DATE: Entered STN: 29 Jun 2000

Last Updated on STN: 29 Jun 2000 Entered Medline: 21 Jun 2000

The angiogenesis inhibitors fumagillin and TNP-470 selectively AB inhibit the proliferation of endothelial cells, as compared with most other cell types. The mechanism of this selective inhibition remains uncertain, although methionine aminopeptidase-2 (MetAP2) has recently been found to be a target for fumagillin or TNP-470, which inactivates MetAP2 enzyme activity through covalent modification. Primary cultures of human endothelial cells and six other non-endothelial cell types were treated with fumagillin to determine its effect on cell proliferation. Only the growth of endothelial cells was completely inhibited at low concentrations of fumagillin. MetAP1 and MetAP2 levels in these cells were investigated to determine whether differential enzyme expression plays a role in the selective action of fumagillin. Western blot analysis and RT-PCR data showed that MetAP1 and MetAP2 were both expressed in these different types of cells, thus, ruling out

differential expression of MetAP1 and MetAP2 as an explanation for the cell specificity of fumagillin. Expression of MetAP2, but not of MetAP1, is regulated. Treatment of human microvascular endothelial cells (HMVEC) with fumagillin resulted in threefold increases of MetAP2 protein in the cells, while MetAP1 remained constant. Similar upregulation of MetAP2 by exposure to fumagillin was also observed in non-endothelial cells, eliminating this response as an explanation for cell specificity. Taken together, these results indicate that while MetAP2 plays a critical role in the effect of fumagillin on endothelial cell proliferation, differential endogenous expression or fumagillin -induced upregulation of methionine aminopeptidases is not responsible for this observed selective inhibition. Copyright 2000 Wiley-Liss, Inc.

ANSWER 5 OF 10 MEDLINE on STN ACCESSION NUMBER: 1999079987 MEDLINE

DOCUMENT NUMBER: PubMed ID: 9860943

TITLE: Molecular recognition of angiogenesis inhibitors fumagillin and ovalicin by methionine

aminopeptidase 2.

AUTHOR:

Griffith E C; Su Z; Niwavama S; Ramsav C A; Chang Y H; Liu JO

CORPORATE SOURCE: Center for Cancer Research, Massachusetts Institute of

Technology, Cambridge, MA 02139, USA. Proceedings of the National Academy of Sciences of the SOURCE:

United States of America, (1998 Dec 22) Vol. 95,

No. 26, pp. 15183-8.

Journal code: 7505876, ISSN: 0027-8424,

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

(RESEARCH SUPPORT, NON-U.S. GOV'T) (RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)

English

LANGUAGE: FILE SEGMENT: Priority Journals

ENTRY MONTH: 199901

ENTRY DATE: Entered STN: 9 Feb 1999

Last Updated on STN: 3 Mar 2000 Entered Medline: 28 Jan 1999

AB Angiogenesis inhibitors are a novel class of promising therapeutic agents for treating cancer and other human diseases. Fumagillin and ovalicin compose a class of structurally related natural products that potently inhibit angiogenesis by blocking endothelial cell proliferation. A synthetic analog of fumagillin, TNP-470, is currently undergoing clinical trials for treatment of a variety of cancers. A common target for fumagillin and ovalicin recently was identified as the type 2 methionine aminopeptidase (MetAP2). These natural products bind MetAP2 covalently, inhibiting its enzymatic activity. The specificity of this binding is underscored by the lack of inhibition of the closely related type 1 enzyme, MetAP1. The molecular basis of the high affinity and specificity of these inhibitors for MetAP2 has remained undiscovered. To determine the structural elements of these inhibitors and MetAP2 that are involved in this interaction, we synthesized fumagillin analogs in which each of the potentially reactive epoxide groups was removed either individually or in combination. We found that the ring epoxide in fumagillin is involved in the covalent modification of MetAP2, whereas the side chain epoxide group is dispensable. By using a fumagillin analog tagged with fluorescein, His-231 in MetAP2 was identified as the residue that is covalently modified by fumagillin. Site-directed mutagenesis of His-231

demonstrated its importance for the catalytic activity of MetAP2

and confirmed that the same residue is covalently modified by fumagillin. These results, in agreement with a recent structural study, suggest that fumagillin and ovalicin inhibit MetAP2 by irreversible blockage of the active site.

L7 ANSWER 6 OF 10 MEDLINE on STN ACCESSION NUMBER: 1999001036 MEDLINE DOCUMENT NUMBER: PubMed ID: 9784858

TITLE: Synthetic analogues of TNP-470 and ovalicin reveal a common

molecular basis for inhibition of angiogenesis and

immunosuppression.

AUTHOR: Turk B E; Su Z; Liu J O

CORPORATE SOURCE: Center for Cancer Research, Massachusetts Institute of

Technology, Cambridge 02139, USA.
SOURCE: Bioorganic & medicinal chemistry, (1998 Aug) Vol.

6, No. 8, pp. 1163-9.

Journal code: 9413298. ISSN: 0968-0896.

PUB. COUNTRY: ENGLAND: United Kingdom

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

(RESEARCH SUPPORT, NON-U.S. GOV'T)
(RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)

LANGUAGE: English

FILE SEGMENT: Priority Journals ENTRY MONTH: 199901

ENTRY DATE: Entered STN: 15 Jan 1999

Last Updated on STN: 15 Jan 1999

Entered Medline: 7 Jan 1999
AB TNP-470 (1), a synthetic derivative of the natural product

fumagillin (2), potently inhibits angiogenesis in vivo and the growth of endothelial cell cultures in vitro. The structurally related natural product ovalicin (3) also inhibits angiogenesis but possesses potent immunosuppressive activity. The recent finding that all three drugs bind and inhibit the same target, methionine aminopeptidase 2 (MetAP2), raised the question of whether TNP-470 is also immunosuppressive and whether inhibition of MetAP2 underlies both activities of ovalicin. To address these questions, we synthesized a series of analogues of TNP-470 and ovalicin and tested them for their abilities to inhibit the proliferation of either endothelial cell or mixed

lymphocyte cultures. TNP-470 and its analogues were found to possess both immunosuppressive and anti-angiogenic activities. A strong correlation was observed between the ability of compounds to inhibit bovine and human endothelial cell growth and their ability to inhibit the mouse mixed lymphocyte reaction (MLR), implying that the two activities share a common

molecular basis, i.e., inhibition of MetAP2. Interestingly, ovalicin and several other compounds behaved differently in the human MLR than in either the mouse MLR or human endothelial cell proliferation assays, pointing to possible species-specific and cell type-specific differences in the metabolism or uptake of these compounds.

L7 ANSWER 7 OF 10 MEDLINE on STN

ACCESSION NUMBER: 97370079 MEDLINE DOCUMENT NUMBER: PubMed ID: 9224570

TITLE: Methionine aminopeptidase (type 2) is the common target for

angiogenesis inhibitors AGM-1470 and ovalicin.

AUTHOR: Griffith E C; Su Z; Turk B E; Chen S; Chang Y H; Wu Z;

Biemann K; Liu J O

CORPORATE SOURCE: Center for Cancer Research, Massachusetts Institute of Technology, Department of Biology, Cambridge, MA 02139,

CONTRACT NUMBER: CA09112 (United States NCI)

SOURCE: Chemistry & biology, (1997 Jun) Vol. 4, No. 6,

pp. 461-71.

Journal code: 9500160. ISSN: 1074-5521.

PUB. COUNTRY: ENGLAND: United Kingdom

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

(RESEARCH SUPPORT, NON-U.S. GOV'T)

(RESEARCH SUPPORT, U.S. GOV'T, NON-P.H.S.)

(RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 199708

ENTRY DATE: Entered STN: 8 Sep 1997

Last Updated on STN: 3 Mar 2000

Entered Medline: 26 Aug 1997

AB BACKGROUND: Angiogenesis, the formation of new blood vessels, is essential for tumor growth. The inhibition of angiogenesis is therefore emerging as a promising therapy for cancer. Two natural products, fumagillin and ovalicin, were discovered to be potent inhibitors of angiogenesis due to their inhibition of endothelial cell proliferation. An analog of fumagillin, AGM-1470, is currently undergoing clinical trials for the treatment of a variety of cancers. The underlying molecular mechanism of the inhibition of angiogenesis by these natural drugs has remained unknown. RESULTS: Both AGM-1470 and ovalicin bind to a common bifunctional protein, identified by mass spectrometry as the type 2 methionine aminopeptidase (MetAP2). This protein also acts as an inhibitor of eukarvotic initiation factor 2alpha (elF-2alpha) phosphorylation. Both drugs potently inhibit the methionine aminopeptidase activity of MetAP2 without affecting its ability to block elF-2alpha phosphorylation. There are two types of methionine aminopeptidase found in eukaryotes, but only the type 2 enzyme is inhibited by the drugs. A series of analogs of fumagillin and ovalicin were synthesized and their potency for inhibition of endothelial cell proliferation and inhibition of methionine aminopeptidase activity was determined. A significant correlation was found between the two activities. CONCLUSIONS: The protein MetAP2 is a common molecular target for both AGM-1470 and ovalicin. This finding suggests that MetAP2 may play a critical role in the proliferation of endothelial cells and may serve as a promising target for the development of new anti-angiogenic drugs.

ANSWER 8 OF 10 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:277764 CAPLUS

DOCUMENT NUMBER: 137:2289

TITLE: Microsporidian methionine aminopeptidase type 2 AUTHOR(S): Weiss, Louis M.; Costa, Sylvia F.; Zhang, Hong CORPORATE SOURCE: Department of Pathology, Albert Einstein College of

Medicine, Bronx, NY, 10461, USA SOURCE:

Journal of Eukaryotic Microbiology (2001),

(Suppl.), 88S-90S

CODEN: JEMIED; ISSN: 1066-5234

Society of Protozoologists

DOCUMENT TYPE: Journal

PUBLISHER:

LANGUAGE: English

The cellular target(s) for fumagillin and its analogs in

microsporidia is unknown, but it is probable that the antimicrosporidial activity of fumagillin and its derivs. is due to inhibition of a methionine aminopeptidase type 2 (MetAP2) homolog and that

MetAP2 is an essential enzyme for these organisms. The authors have been able to demonstrate that microsporidian spore lysates have

methionine aminopeptidase activity and by using homol. PCR have isolated a MetAP2 gene from Encephalitozoon hellem.

REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD, ALL CITATIONS AVAILABLE IN THE RE FORMAT L7 ANSWER 9 OF 10 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2001:912925 CAPLUS

DOCUMENT NUMBER: 137:104373

TITLE: Identification of a protein interacting with type 2

methionine aminopeptidase by yeast two-hybrid system Liu, Weifeng; Liu, Jun AUTHOR(S):

State Key Laboratory of Microbial Technology, Shandong CORPORATE SOURCE:

University, Jinan, 250100, Peop. Rep. China

SOURCE: Shengwu Huaxue Yu Shengwu Wuli Xuebao (2001

), 33(6), 719-722

CODEN: SHWPAU: ISSN: 0582-9879

PUBLISHER: Shanghai Kexue Jishu Chubanshe

DOCUMENT TYPE: Journal

LANGUAGE: Chinese

Type 2 methionine aminopeptidase (MetAP2) is the mol. target for the fumagillin inhibitors against angiogenesis. Used the yeast two-hybrid system with GAL4 DBD-fused MetAP2 as a bait, a human brain cDNA library was screened to isolate protein factors that might interact with MetAP2. Among the 2 x 106 transformants, five pos. clones were picked out. Sequence anal, revealed that three of them contained cDNA fragments from flotillin and encoded a carboxy terminus (starting from amino acids 145-233, resp.) of flotillin protein. The interaction between MetAP2 and flotillin detected by yeast

two-hybrid system suggested that MetAP2 might play a role in some biol. processes where flotillin was involved.

ANSWER 10 OF 10 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2000:112763 CAPLUS

DOCUMENT NUMBER: 132:146060

TITLE: TNP-470 (Takeda Chemical Industries Ltd)

AUTHOR(S): Grosios, Konstantina

CORPORATE SOURCE: Molecular Medicine Unit, University of Leeds, Leeds, LS9 7TF, UK

Current Opinion in Oncologic, Endocrine & Metabolic

Investigational Drugs (1999), 1(5), 536-559 CODEN: COODF2; ISSN: 1464-8466

PUBLISHER: Current Drugs Ltd.

DOCUMENT TYPE: Journal; General Review

LANGUAGE: English

SOURCE:

A review with .apprx.350 refs. TNP-470, a semisynthetic analog of fumagillin, is an angiogenesis inhibitor under development by Takeda for the potential treatment of cancer. It is being evaluated in phase II trials in the US in patients with Kaposi's sarcoma (KS) and other cancers. TNP-470 has also completed phase II trials for cervical and lung cancer and is undergoing phase I trials in patients with androgen-independent prostate cancer. Results from a phase II study showed that, following one year's treatment with TNP-470, a patient with cervical cancer and lung metastases was cleared of the disease. Trials sponsored by TAP Holdings are underway and patients with breast cancer, who have previously responded to cyclophosphamide and doxorubicin with or without fluorouracil, have been recruited at 11 sites across the US. Patients with inoperable and/or metastatic cervical cancer are being treated at three sites, those with local advanced pancreatic cancer at 12 sites. A 50-patient trial against glioblastoma multiform has completed recruitment. Three clin. trials are underway at the Dana-Farber Cancer Institute involving: children and adolescents aged 2 to 21 yr with recurrent malignant tumors unresponsive to conventional therapy; adults with high-grade brain tumors who have completed radiotherapy within 5 wk; and, a phase II trial in adults with metastatic, recurrent or inoperable renal cell carcinoma. Of the 33 patients enrolled so far in the renal cell carcinoma trial, 20 are evaluable. Stable disease has been exhibited by five patients, while one patient displayed a partial response. Phase I

trial results show that TNP-470 concns. needed for treatment can be obtained in vivo and that the drug is rapidly cleared. In an escalating dose study, the maximum tolerated dose was shown to be 177 mg/m2 and the mean peak concentration was 200 ng/mL. In animal studies, the compound was shown to inhibit a wide spectrum of tumor types in mice independent of immune status or sex with a treated/control tumor volume of 0.35. Resistance to treatment had not developed after 200 days of therapy. TNP-470, in combination with minocycline and interferon, reduces pancreatic tumor volume to 11% and capillary d. to 40%, in murine expts. In vitro administration of TNP-470 to chick embryonic chorioallantoic membranes and rat cornea inhibited blood vessel growth. Addnl., in the 'rat sponge implantation' assay, TNP-470 inhibited fibroblast growth factor-induced angiogenesis, while in cultured rat blood vessels, TNP-470 inhibited the growth of capillary-like structures but did not affect the growth of non-endothelial cell types. A combination of cisplatin and TNP-470 was tested for its ability to inhibit the growth of murine reticulum cell sarcoma implanted intradermally into C57BL/6 mice. Cisplatin (7.5 mg/kg iv) was injected every 5 days and TNP-470 (25, 50 or 100 mg/kg s.c.) every week. Average tumor vols. in the control mice were 1250 mm3 by day 26. In cisplatin-treated mice, tumor vols. were 1500 mm3 by day 35 while tumor vols. in the three combined treatment groups were 750, 250 and 250 mm3, resp. In a comparative study with cidofovir (Gilead Sciences Inc), TNP-470 significantly delayed mortality in rats infected by the murine polyoma virus, even when the onset of treatment was delayed until 9 days after birth. TNP-470 also prevents pregnancy in mice and may have the potential to act as a contraceptive in humans, as well as to treat fibroid and other benign tumors of the uterus. The target of the fumagillol (or fumagillin) analogs is thought to be methionine aminopeptidase-2 (MetAP2), an intracellular metalloproteinase which removes the N-terminal from newly-synthesized proteins. Formulations containing TNP-470 have been claimed by Takeda in for use in the treatment of cancer and metastasis. Derivs. of the compound are also claimed as angiogenesis inhibitors.

REFERENCE COUNT:

334 THERE ARE 334 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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(FILE 'HOME' ENTERED AT 10:14:49 ON 13 JUL 2008)

FILE 'MEDLINE, CAPLUS' ENTERED AT 10:15:09 ON 13 JUL 2008 L1 52003 S WEISS-?/AU L2 1976 S L1 AND PY=2001

1 S L2 AND METAP2

FILE 'STNGUIDE' ENTERED AT 10:17:37 ON 13 JUL 2008

FILE 'MEDLINE, CAPLUS' ENTERED AT 10:20:45 ON 13 JUL 2008

L4 977 S FUMAGILLIN

L5 77 S L4 AND METAP2

L6 52 DUP REM L5 (25 DUPLICATES REMOVED)

L7 10 S L6 AND PY<=2001

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L8 0 L7 AND ANTIBACTER?

=> s 14 and antibacter?

L9 20 L4 AND ANTIBACTER?

=> dup rem 19

PROCESSING COMPLETED FOR L9

L10 19 DUP REM L9 (1 DUPLICATE REMOVED)

=> s 110 and py<=2001

L11 9 L10 AND PY<=2001

=> d ibib abs 1-9

L11 ANSWER 1 OF 9 MEDLINE ON STN
ACCESSION NUMBER: 96142051 MEDLINE
DOCUMENT NUMBER: PubMed ID: 8554085

TITLE: Diagnosis of microsporidial keratitis by confocal

microscopy and the chromatrope stain.

AUTHOR: Shah G K; Pfister D; Probst L E; Ferrieri P; Holland E CORPORATE SOURCE: Department of Ophthalmology, University of Minnesota

Hospital 55455-0501, USA.

SOURCE: American journal of ophthalmology, (1996 Jan) Vol. 121, No. 1, pp. 89-91.

Journal code: 0370500. ISSN: 0002-9394.
PUB. COUNTRY: United States

PUB. COUNTRY: United States
DOCUMENT TYPE: (CASE REPORTS)

Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals; AIDS ENTRY MONTH: 199602

Entered STN: 6 Mar 1996 ENTRY DATE:

Last Updated on STN: 6 Mar 1996

Entered Medline: 16 Feb 1996 PURPOSE: To illustrate the value of confocal microscopy and chromatrope AB

stain in the diagnosis of microsporidial keratitis. METHODS: In vivo confocal microscopy was performed on a man with the human immunodeficiency virus who had severe bilateral epithelial keratitis refractory to topical antibacterial medications. The results were compared to conjunctival scrapings stained with the chromatrope-based Weber stain. RESULTS: Confocal microscopy demonstrated many small, intraepithelial opacities of the corneal epithelium, which were suggestive of Microsporidia. Results of the chromatrope stain of conjunctival scrapings confirmed the diagnosis of microsporidial keratitis. CONCLUSIONS: Rapid diagnosis allowed prompt initiation of topical fumagillin, which permitted rapid, long-term control of the symptoms of microsporidial keratitis.

L11 ANSWER 2 OF 9 CAPLUS COPYRIGHT 2008 ACS on STN

Patent

ACCESSION NUMBER: 2001:730530 CAPLUS

DOCUMENT NUMBER: 135:293950

TITLE: A self-emulsifying system combined with a polymer matrix for transmucosal and transdermal delivery INVENTOR(S): Hong, Chung Il; Shin, Hee Jong; Ki, Min Hyo; Lee, Seok

Kyu; Kweon, Don Sun PATENT ASSIGNEE(S): Chong Kun Dang Pharmaceutical Corp., S. Korea

SOURCE: PCT Int. Appl., 41 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

LANGUAGE: English FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | | | | | KIND DATE | | | | | APPL | ICAT | ION: | DATE | | | | | |
|------------|---------------|------|------|-----|-----------|-------------|------|------|-----|---------------|------|------|------|-----|------------|------------|-------|---|
| WO | WO 2001072282 | | | | | A1 20011004 | | | | WO 2001-KR509 | | | | | | 20010329 < | | |
| | W: | ΑE, | AG, | AL, | AM, | AT, | AU, | AZ, | BA, | BB, | BG, | BR, | BY, | BZ, | CA, | CH, | CN, | |
| | | CR, | CU, | CZ, | DE, | DK, | DM, | DZ, | EE, | ES, | FI, | GB, | GD, | GE, | GH, | GM, | HR, | |
| | | HU, | ID, | IL, | IN, | IS, | JP, | KE, | KG, | KP, | KZ, | LC, | LK, | LR, | LS, | LT, | LU, | |
| | | LV, | MA, | MD, | MG, | MK, | MN, | MW, | MX, | MZ, | NO, | NZ, | PL, | PT, | RO, | RU, | SD, | |
| | | SE, | SG, | SI, | SK, | SL, | TJ, | TM, | TR, | TT, | TZ, | UA, | UG, | US, | UZ, | VN, | YU, | |
| | | ZA, | ZW | | | | | | | | | | | | | | | |
| | RW: | GH, | GM, | KE, | LS, | MW, | MZ, | SD, | SL, | SZ, | TZ, | UG, | ZW, | AT, | BE, | CH, | CY, | |
| | | DE, | DK, | ES, | FI, | FR, | GB, | GR, | ΙE, | IT, | LU, | MC, | NL, | PT, | SE, | TR, | BF, | |
| | | ВJ, | CF, | CG, | CI, | CM, | GA, | GN, | GW, | ML, | MR, | NE, | SN, | TD, | TG | | | |
| KR | 2001 | 0937 | 28 | | A | | 2001 | 1029 | | KR 2 | 001- | 1614 | 0 | | 2 | 0010 | 328 < | - |
| US | 2003 | 0129 | 219 | | A1 | | 2003 | 0710 | | US 2 | 002- | 2395 | 29 | | 2 | 0020 | 923 | |
| PRIORIT | Y APP | LN. | INFO | . : | | | | | | KR 2000-16257 | | | | | A 20000329 | | | |
| | | | | | | | | | | WO 2 | 001- | KR50 | 9 | | W 2 | 0010 | 329 | |

AB A novel pharmaceutical composition of a self-emulsifying matrix preparation, which

is a preparation for transmucosal or transdermal absorption in which a self-emulsifying drug delivery system is grafted to a polymeric matrix preparation is described. For this, fatty alc., fatty acid or their derivs. of 6 to 20 carbon atoms having a drug absorption-accelerating action through the skin or mucous membrane is used as an oil phase. Also, to increase the drug content in the matrix, a liquid phase material having a b.p. of 100°C or more is used as a solution adjuvant. Using such materials, the self-emulsifying system with a surfactant is prepared A hydrophilic or hydrophobic polymer is added and dissolved in the self-emulsifying system,

and the resulting mixture is dried to prepare the matrix preparation containing the

self-emulsifying system. The self-emulsifying matrix preparation thus prepared maintains a constant drug-releasing rate during its application period by virtue of its excellent stability and exhibits an extraordinarily high skin-absorption rate. For example, a self-emulsifying system was prepared using oleyl alc. 10, glycerin (1) oleic acid ester 10, diethylene glycol monoethyl ether 40, and Cremophor RR40 40 parts, resp., as an oily phase. Upon the addition of water, a self-emulsification was obtained. To 10 g of the self-emulsifying matrix prepared was added 5 g of arecoline monohydrobromide as a drug. Sixty grams of poly(ethylene oxide) was dissolved into 30 g of water and 30 g of ethanol to form a polymer solution has added to the self-emulsifying system containing

the

drug to give a transparent viscous solution, which was then dried at 80° for 10 min to form a self-emulsifying matrix with a thickness of 505 μm . During the process of drying, UV ray may be irradiated for 5 min, if necessary.

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 3 OF 9 CAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 1999:736476 CAPLUS

ACCESSION NUMBER: 1999:736476 CAPI DOCUMENT NUMBER: 131:346535

TITLE: Use of neomycin for treating angiogenesis-related diseases

INVENTOR(S): Hu, Guo-Fu; Vallee, Bert L.

PATENT ASSIGNEE(S): The Endowment for Research In Human Biology, Inc., USA

SOURCE: PCT Int. Appl., 74 pp.

CODEN: PIXXD2
DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1 PATENT INFORMATION:

| PATENT NO. | | | | | KIND DATE | | | | | APPL | ICAT | ION I | | DATE | | | |
|------------|-------|-----|------|-----|-----------|-----|------|------|-----|------|-------|------------|-----|------|-----|-------|-------|
| WO | 9958 | 126 | | | A1 | | 1999 | 1118 | | WO 1 | 1 | 19990511 < | | | | | |
| | W: | ΑE, | AL, | AM, | AT, | AU, | AZ, | BA, | BB, | BG, | BR, | BY, | CA, | CH, | CN, | CU, | CZ, |
| | | DE, | DK, | EE, | ES, | FI, | GB, | GD, | GE, | GH, | GM, | HR, | HU, | ID, | IL, | IN, | IS, |
| | | JP, | KE, | KG, | KΡ, | KR, | KZ, | LC, | LK, | LR, | LS, | LT, | LU, | LV, | MD, | MG, | MK, |
| | | MN, | MW, | MX, | NO, | NZ, | PL, | PT, | RO, | RU, | SD, | SE, | SG, | SI, | SK, | SL, | TJ, |
| | | TM, | TR, | TT, | UA, | UG, | US, | UZ, | VN, | YU, | ZA, | ZW, | AM, | ΑZ, | BY, | KG, | KZ, |
| | | MD, | RU, | ΤJ, | TM | | | | | | | | | | | | |
| | RW: | GH, | GM, | KE, | LS, | MW, | SD, | SL, | SZ, | UG, | ZW, | AT, | BE, | CH, | CY, | DE, | DK, |
| | | ES, | FI, | FR, | GB, | GR, | ΙE, | IT, | LU, | MC, | NL, | PT, | SE, | BF, | ВJ, | CF, | CG, |
| | | CI, | CM, | GA, | GN, | GW, | ML, | MR, | NE, | SN, | TD, | TG | | | | | |
| | 2331 | | | | | | | | | | | | | | | | 511 < |
| | | | | | | | | | | | | | | | | | 511 < |
| EP | 1083 | 896 | | | A1 | | 2001 | 0321 | | EP 1 | 999- | 9229 | 15 | | 1 | 9990 | 511 < |
| | R: | AT, | BE, | CH, | DE, | DK, | ES, | FR, | GB, | GR, | IT, | LI, | LU, | NL, | SE, | MC, | PT, |
| | | ΙE, | FΙ | | | | | | | | | | | | | | |
| US | 6482 | 802 | | | B1 | | 2002 | 1119 | | US 2 | 000- | 7004 | 36 | | 2 | 0001: | 109 |
| PRIORIT | Y APP | LN. | INFO | . : | | | | | | US 1 | 998- | 8492 | 1P | 1 | P 1 | 9980 | 511 |
| | | | | | | | | | | WO 1 | 999-1 | US10: | 269 | 1 | W 1 | 9990 | 511 |

AB The present invention is directed to using neomycin or an analog thereof as a therapeutic agent to treat angiogenesis-related diseases, which are characterized by excessive, undesired or inappropriate angiogenesis or proliferation of endothelial cells. The present invention is also directed to pharmaceutical compns. comprising: (a) neomycin or an analog and, optionally, (b) another anti-angiogenic agent or an anti-neoplastic agent. The present invention is further directed to a method for screening neomycin analogs having anti-angiogenic activity. A preferred embodiment of the invention relates to using neomycin to treat subjects having such diseases. A dose of 20 ng neomycin/embryo or higher completely inhibited angiogenin-induced angiogenesis in the chorioallantoic membrane (CAM) assay. Neomycin inhibits angiogenin-induced angiogenesis mainly through inhibition of nuclear

translocation of angiogenin.

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 4 OF 9 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1998:679789 CAPLUS

DOCUMENT NUMBER: 130:32778

TITLE: The anti-angiogenic agent fumagillin

covalently modifies a conserved active-site histidine
in the Escherichia coll methionine aminopeptidase
AUTHOR(S): Lowther, M. Todd; McMillen, Debra A.; Orville, Allen

M.; Matthews, Brian W.

CORPORATE SOURCE: Institute of Molecular Biology, Howard Hughes Medical

Institute and Department of Physics, Biotechnology Laboratory, University of Oregon, Eugene, OR, 97403,

SOURCE: Proceedings of the National Academy of Sciences of the

United States of America (1998), 95(21),

12153-12157

CODEN: PNASA6; ISSN: 0027-8424

PUBLISHER: National Academy of Sciences
DOCUMENT TYPE: Journal

LANGUAGE: English

AB Methionine aminopeptidase (MetAP) exists in two forms (type I and type II), both of which remove the N-terminal methionine from proteins. It previously has been shown that the type II enzyme is the mol. target of fumagillin and ovalicin, two epoxide-containing natural products that inhibit angiogenesis and suppress tumor growth. By using mass spectrometry, N-terminal sequence anal., and electronic absorption spectroscopy the authors show that fumagillin and ovalicin covalently modify a conserved histidine residue in the active site of the MetAP from Escherichia coli, a type I enzyme. Because all of the key active site residues are conserved, it is likely that a similar modification occurs in the type II enzymes. This modification, by occluding the active site, may prevent the action of MetAP on proteins or peptides involved in angiogenesis. In addition, the results suggest that these compds. may be effective pharmacol. agents against pathogenic and

resistant forms of E. coli and other microorganisms.

REFERENCE COUNT: 35 THERE ARE 35 CITED REFERENCE

35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 5 OF 9 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1969:55133 CAPLUS DOCUMENT NUMBER: 70:55133

ORIGINAL REFERENCE NO.: 70:10349a,10352a

TITLE: Sensitivity of Anacystis nidulans and Chlorella as a screening test for new biologically active substances

from actinomycetes

AUTHOR(S): Ivanitskaya, L. P.; Manafova, N. A.

CORPORATE SOURCE: Nauch.-Issled. Inst. Izyskaniyu Novykh Antibiot., Moscow, USSR

SOURCE: Antibiotiki (Moscow) (1968), 13(12), 1104-9

CODEN: ANTBAL; ISSN: 0003-5637

DOCUMENT TYPE: Journal

LANGUAGE: Russian

AB Chlorella, like gram-pos. bacteria, was resistant to the

antibacterial antibiotics (in mg./ml.) erythromycin (2.5), levomycetin (20), gramicidin (20), polymyxin (5), streptomycin (3), ristomycin (4), penicillin (0.5 unit/ml.), monomycin (4), lincomycin (50), and tetracycline (5), whereas A. nidulans was sensitive to all but polymyxin. Chlorella was sensitive to the antineoplastic antibiotics (in mg./ ml.) rubomycin B (2) and tavromycetin (5) and insensitive to rubomycin C (50), oligomycin (2), bruneomycin (0.5), echinomycin (1), and actinomycin C (2); A. nidulans was sensitive to all these agents. Chlorella was sensitive to the fungicidal antibiotics (in mg./ml.) nystatin (0.5), trichomycin (1), candidin (5), chamycin (1), levorin (1), lagosin (0.5), antibiotic 3539 (0.5), fumagillin (50), perimycin (0.5), antibiotic 661 (1), amphotericin (0.5), fungichromin (0.5), trichothecin (0.5), griseofulvin (25), and gliotoxin (5); A. nidulans was sensitive only to gliotoxin. The sensitivity of Chlorella to antifungal antibiotics and to the 2 antitumor antibiotics and its insensitivity to antibacterial antibiotics makes it a useful, easily cultivated, indirect test organism for screening and testing biol. active substances.

L11 ANSWER 6 OF 9 CAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 1957:58569 CAPLUS

DOCUMENT NUMBER: 51:58569

ORIGINAL REFERENCE NO.: 51:10846a-d

Antibiotic D-52 and its salts TITLE:

PATENT ASSIGNEE(S): Upiohn Co. DOCUMENT TYPE: Pat.ent.

LANGUAGE: Unavailable

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

KIND DATE APPLICATION NO. PATENT NO. APPLICATION NO. DATE GB 768971 19570227 GB

Antibiotic D-52 (I) is obtained from cultures of Streptomyces caelestis AB (II). Flasks containing autoclaved and cooled culture medium are inoculated with an aqueous spore suspension of II and incubated at 24-8° for 48 hrs. with shaking. Portions of the medium are transferred to a series of flasks with culture medium, incubated again, and assayed. The medium is then filtered, extracted with CH2Cl2, concentrated in vacuo, added to Skellysolve B,

and the precipitate washed and dried. The I thus obtained is stable at pH 2-7, soluble in water at pH 1-7, and 10-13, insol. at pH 7.5-9, and insol. in 6N NaOH. It is amphoteric, soluble in MeOH, CHCl3, EtOAc, and CH2Cl2, but insol. in Et20 and ligroine. The acid salts of I are water-soluble I, C23H36-4009N2S, has an E value of 182 at 239 mm and at 74 of 307 mm, $[\alpha]D24 = +121.5.$ A suspension of I in liquid petrolatum shows infrared absorption at 3340, 3210, 1900, 1672, 1655, 1615, 1570, 1545, 1488, 1090, and 758 A. Spectral data are also given for I oxalate, salicylate, and hydrochloride. I and its acid addition salts have a broad antibacterial spectrum, especially against grampos. bacteria, and are useful in the treatment of plant diseases, such as fire blight in apple and pear trees.

L11 ANSWER 7 OF 9 CAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 1957:49142 CAPLUS DOCUMENT NUMBER: 51:49142 ORIGINAL REFERENCE NO.: 51:9098f-h TITLE: Fumagillin Abbott Laboratories PATENT ASSIGNEE(S):

DOCUMENT TYPE: Patent. LANGUAGE: Unavailable

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE

19570102 GB GB 764710 Fumagillin (I) is produced by aerobic fermentation of a culture

AR of Aspergillus fumigatus NRRL 2436, extracted with a suitable solvent, and purified. The inoculated culture medium is incubated for 108 hrs. at 26° with agitation and aeration. At the end of the incubation period, the liquid is filtered, the pH adjusted to 7.5-8.5, fatty materials extracted with hexane, the pH adjusted to 3, extracted with CHCl3, evaporated in vacuo, the residue dissolved in Me2CO, cooled to 5°, filtered, evaporated in vacuo under N, centrifuged, the solids washed with tert-BuOH and dried. The I thus obtained, m. 190-2°, is a white crystalline solid organic carboxylic acid, $[\alpha]D25$ -27°. It contains a free carboxyl group and an ester which can be liberated by heating with dilute alkali. When hydrogenated I takes up 5 moles of H, ultraviolet absorption in EtOH shows peaks at 239, 304, 322, 335, and 351 mm. The infrared spectrum of a 5% solution of I in CHCl shows absorption bands at 3125, 1709, 1633, 1600, 1577, 1490, 1377, 1231, 1164, 1125, 1010, and 835 cm.-1 I is specifically active against intestinal protozoa, Endameoba histolytica, and has antibacteriophage activity.

L11 ANSWER 8 OF 9 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1954:47905 CAPLUS

DOCUMENT NUMBER: 48:47905

ORIGINAL REFERENCE NO.: 48:8493i,8494a-i

TITLE: Funagillin Hunson, Frederick R.; Eble, Thomas E.

PATENT ASSIGNEE(S): Upjohn Co.

DCCUMENT TYPE: Patent

LANGUAGE. Unavailable LANGUAGE:

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE PATENT NO. 19530915 US

Fumagillin (I) is a new antibiotic substance prepared by cultivating a fumagillin-producing strain, Aspergillus fumigatus H-3 (II), in a nutrient medium consisting of dextrin 10, NaCl 5, corn steep solids 32, and CaCO3 1 g. in sufficient water to make 1 l. at a pH adjusted to 6.7 by the addition of NaOH solution Then 1500 gals, of the dextrin-steep medium in a 2000-gal. glass-lined fermentation tank was inoculated with 75 gals. of a 48-hr. vegetative culture of II. The inoculated medium was incubated for 42 hrs. at 24° with stirring and aeration at a rate of 80 cu. ft./min. At the end of 42 hrs. an assay showed 170 phage units/ml. Diatomaceous filter-aid (150 lb.) was added, and the mixture was filtered through a filter press. The clarified liquid contained 26.6 mg. solids/ml. and assayed 142 phage/ml. It was extracted with 177 gals. hexane in a Podbielniak extractor. The hexane layer containing fatty material was discarded. The defatted liquid was then extracted with 155 gals. CHC13. The CHC13 layer was separated and contained 1190 g. of solids and 35 g. I as shown by assay. CHC13 was removed under reduced pressure without external heating. The residual sirup was dissolved in sufficient acetone to make 3700 ml. solution The acetone solution was cooled to 5° and the small, brown precipitate was filtered off. The precipitate was washed

with

acetone, and the washings were added to the original filtrate to make a combined volume of 3800 ml. This solution contained 1062 g. solids having an anti-phage potency of 300 y/mg. A 1500-ml. portion of the acetone solution was concentrated under reduced pressure at room temperature under an atmospheric of N

to a volume of 900 ml. The thick suspension was then placed in a 1-1. centrifuge cup, under N, and cooled at -30° for 18 hrs. The suspension was then centrifuged for 1 hr. at 1500-1700 r.p.m. The supernatant liquid was decanted from the solids which were then washed 5 times at room temperature with several 1525-ml. portions of tert-BuOH. The residue was dried at room temperature and weighed 22.2 g. It was recrystd.

from

500 ml. of a mixture of equal parts MeOH and water and yielded 19.8 g. of a white, crystalline solid, m. 190-1° (capillary tube) and 189-194° (Kopfler block). It has a pK of 6.5 and is optically active, $|\alpha|25D$ of -26.6° (0.25% in MeOH). It is an organic carboxylic acid with an addnl. alkoxyl group and has the approx. empirical formula C27H3607. The mol. weight as calculated from its neutral equivalent is 475 and as calculated

from the alkoxyl determination is 400. It gives no FeCl3 or Millon's test. The Salkowski

sterol test is questionably positive. The Lieberman-Burchard test and Legal's test are neg. The ultraviolet absorption spectrum shows peaks at 239, 304 (flex), 332 (flex), 336, and 351 mm with "k" values of 7.52 at 239 mµ, 147.8 at 336 mµ, and 136.4 at 351 mµ, which indicatet he presence of a conjugated double-bond system composed of at least 3 and possibly 4 double bonds. The infrared spectrum shows bands at 3120, 1714, 1632, 1997, 1576, 1491, 1377, 1230, 1163, 1124, 1013, and 838 mu. (500 mg.) in 500 ml. C6H6 was treated with an excess of diazomethane dissolved in anhydrous Et20. The mixture was cooled to about 5° for 30 min. and then allowed to stand at room temperature for an addnl. 2 hrs., Et20 and C6H6 were removed under reduced pressure. The residue was dissolved in 70 ml. MeOH and diluted with 30 ml. water. Upon cooling to 5° the crystalline methyl ester of I separated and was collected to yield 370 mg., m. 145-7°. Ultraviolet absortion spectrum showed peaks at 238.5, 336, and 352 mm. A solution of 100 mg. I in a mixture of 2.0 ml. CHCl3 and 0.3 ml. CC14 was treated by the dropwise addition at room temperature, with stirring,

of 5.0 ml. of a 5% solution of Br in CC14. The solvents were removed by evaporation in a current of air at room temperature, and the residue was dissolved in

20 ml. MeOH to which 5 ml. of water was added. Upon cooling to 5°, 110 mg. of yellow crystals of I octabromide, m. 118-122° (Kopfier block), was obtained. A solution of 100 mg. I in 15 ml. EtOH was treated with 75 mg. of 2,4-dinitrophenylhydrazine and heated to boiling. Concentrated HCl (1 ml.) was added, and the solution was heated under reflux for 5 min. Upon cooling overnight 22 mg. I bis(2,4-dinitrophenylhydrazone), m. 123-6° (Kopfier) was deposited. Ultraviolet and infrared absorption spectra showed presence of bands of 3285, 3100, 1618, 1596, 1505, and 1520 cm-1 indicative of 2,4-dinitrophenylhydrazones, and an addnl. band at 1710 cm-1. indicative of the carbonyl group. I is effective against viruses and has antibacteriophage activity. In vitro it is effective against Micrococcus progenes var. aureus bacteriophage and Endamoeba histolytica. It is useful in the treatment of infections in man and in animals. Cf. C. A. 44, 8604f.

L11 ANSWER 9 OF 9 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1953:35162 CAPLUS

DOCUMENT NUMBER: 47:35162
ORIGINAL REFERENCE NO.: 47:5987e-f

TITLE: Comparative action of selected amebicidal agents and antibiotics against several species of human

intestinal amebas
AUTHOR(S): Balamuth, Wm.

CORPORATE SOURCE: Northwestern Univ., Evanston, IL

SOURCE: American Journal of Tropical Medicine and Hygiene (1953), 2, 191-205

CODEN: AJTHAB; ISSN: 0002-9637

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

AB Emetine, vioform, carbarsone oxide, C.C. Number 914 (a dithio derivative of the latter), prodigiosin, and aureomycin were tested in vitro against Endamoeba histolytica, E. coli, Dientamoeba fragilis, and Endolimax nana. E. histolytica was 25 times more susceptible to the amebicidal action of emetine than the other species and monobacterial cultures were more susceptible than mixed ones. Prodigiosin, carbarsone oxide, and C.C. Number 914 exhibited the broadest activity spectra, while aureomycin had relatively little amebicidal activity. Fumagillin is the most potent amebicide in vitro yet discovered.

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(FILE 'HOME' ENTERED AT 10:14:49 ON 13 JUL 2008)

FILE 'MEDLINE, CAPLUS' ENTERED AT 10:15:09 ON 13 JUL 2008

L1 52003 S WEISS-?/AU

L2 1976 S L1 AND PY=2001

L3 1 S L2 AND METAP2

FILE 'STNGUIDE' ENTERED AT 10:17:37 ON 13 JUL 2008

FILE 'MEDLINE, CAPLUS' ENTERED AT 10:20:45 ON 13 JUL 2008

L4 977 S FUMAGILLIN

L5 77 S L4 AND METAP2

L6 52 DUP REM L5 (25 DUPLICATES REMOVED)

L7 10 S L6 AND PY<=2001

FILE 'STNGUIDE' ENTERED AT 10:26:10 ON 13 JUL 2008

FILE 'MEDLINE, CAPLUS' ENTERED AT 10:31:28 ON 13 JUL 2008 L8 0 S L7 AND ANTIBACTER?

L9 20 S L4 AND ANTIBACTER?

L10 19 DUP REM L9 (1 DUPLICATE REMOVED)

L11 9 S L10 AND PY<=2001

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